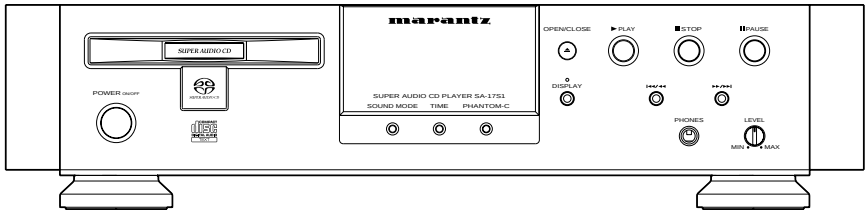
Service Manual

SA17S1 /F1N/L1G/N1G/S1G

Super Audio CD Player



SUPER AUDIO CD

COMPACT disc DIGITAL AUDIO TEXT

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Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

SA-17S1

08AK855010 MIT
First Issue 2002.12

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA

MARANTZ AMERICA, INC
1100 MAPLEWOOD DRIVE
ITASCA, IL. 60143
USA
PHONE : 630 - 741 - 0300
FAX : 630 - 741 - 0301

EUROPE / TRADING

MARANTZ EUROPE B.V.
P. O. BOX 8744, BUILDING SILVERPOINT
BEEMDSTRAAT 11, 5653 MA EINDHOVEN
THE NETHERLANDS
PHONE : +31 - 40 - 2507844
FAX : +31 - 40 - 2507860

CANADA

LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

PROFESSIONAL **AMERICAS**

SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

PROFESSIONAL **AUSTRALIA**

TECHNICAL AUDIO GROUP PTY, LTD
558 DARLING STREET,
BALMAIN, NSW 2041,
AUSTRALIA
PHONE : 61 - 2 - 9810 - 5300
FAX : 61 - 2 - 9810 - 5355

PROFESSIONAL **HONG KONG**

Jolly ProAudio Broadcast Engineering Ltd.
UNIT 2, 10F, WAH HUNG CENTRE,
41 HUNG TO ROAD, KWUN TONG, KLN.,
HONG KONG
PHONE : 852 - 21913660
FAX : 852 - 21913990

AUSTRALIA

QualiFi Pty Ltd,
24 LIONEL ROAD,
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - (0)3 - 9543 - 1522
FAX : +61 - (0)3 - 9543 - 3677

THAILAND

MRZ STANDARD CO., LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE

WO KEE HONG DISTRIBUTION PTE LTD
130 JOO SENG ROAD
#03-02 OLIVINE BUILDING
SINGAPORE 368357
PHONE : +65 6858 5535 / +65 6381 8621
FAX : +65 6858 6078

NEW ZEALAND

WILDASH AUDIO SYSTEMS NZ
14 MALVERN ROAD MT ALBERT
AUCKLAND NEW ZEALAND
PHONE : +64 - 9 - 8451958
FAX : +64 - 9 - 8463554

TAIWAN

PAI- YUING CO., LTD.
6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA

WO KEE HONG ELECTRONICS SDN. BHD.
2ND FLOOR BANGUNAN INFINITE CENTRE
LOT 1, JALAN 13/6, 46200 PETALING JAYA
SELANGOR DARUL EHSAN, MALAYSIA
PHONE : +60 - 3 - 7954 8088
FAX : +60 - 3 - 7954 7088

JAPAN *Technical*

MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

日本マランツ株式会社

本 社 〒228-8505
神奈川県相模原市相模大野7-35-1
営業本部 〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

	Super Audio CD	CD
Audio Characteristics		
Analog output		
Channels	6channels (Max.)	2channels
Frequency range	2Hz — 100kHz	2Hz — 20kHz
Frequency characteristics	2Hz — 50kHz (-3dB)	2Hz — 20kHz
Dynamic range	114dB	100dB
THD (1kHz)	0.0008%	0.0020%
Wow & Flutter	Precision of quartz	Precision of quartz
Output level	2.2V	2.2V
Digital output		
Output level (Cinch JACK)	—	0.5Vp-p (75Ω)
Output level (Optical)	—	-19dBm
Headphone output level	0.5W / 32Ω (max, Vol.)	0.5mW / 32Ω (max, Vol.)
Optical Readout System		
Laser	AlGaAs	AlGaAs
Wave length	650nm	780nm
Signal format	1-bit DSD	16-bit linear PCM
Sampling frequency	2.8224MHz	44.1kHz

Power Supply

Input Voltage, Frequency (/F)..... AC 100V 50/60Hz
(/L)..... AC 110V 60Hz
(/N/S)..... AC 230V 50Hz
Power Consumption..... 24W

Cabinet, etc.

Dimensions .....458 × 110 × 394mm
Net weight 11.5kg
Operating temperatures ..... +5°C ~ +35°C
Operating humidity .....5 ~ 90% (without dew)

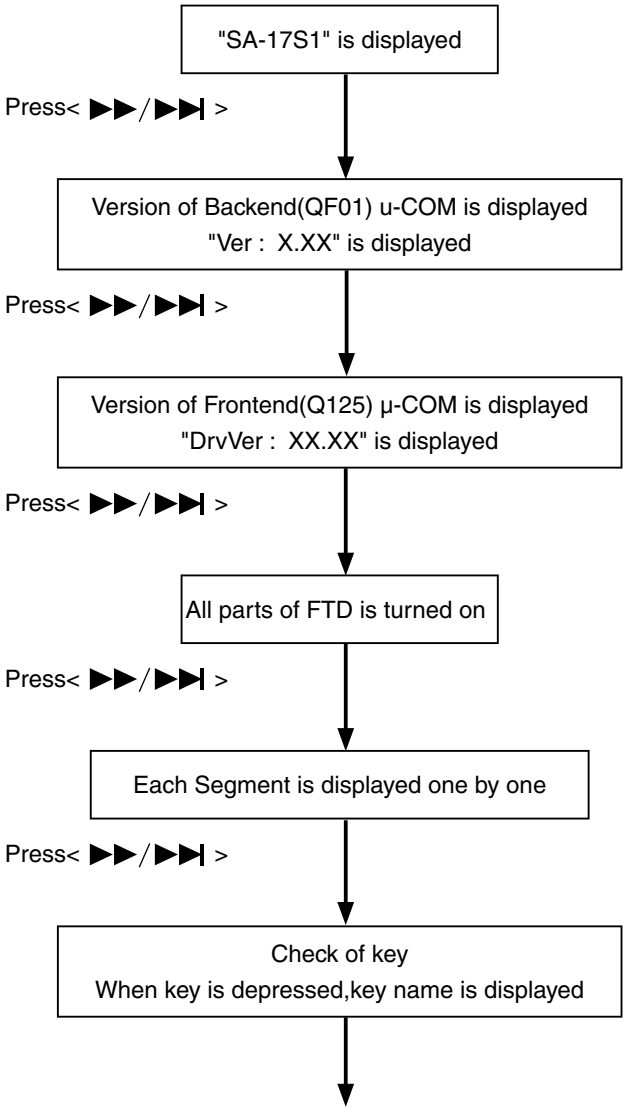
Accessories

- Remote control unit (RC-17SAS1) 1
  Dimensions (Width × Height × Depth).....44 × 17.5 × 239mm
  Net weight (without Batteries) 189g
- AAA (R03) Batteries 2
- AC Power cord 1
- Audio cable .....3 pairs
- Remote connection Cable 1
- User's Guide 1

2. SERVICE MODE

2-1. Factory mode

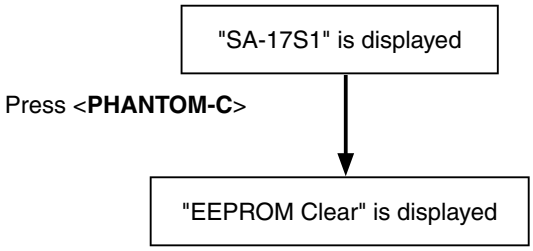
While pressing <**OPEN/CLOSE**>and<**NEXT**>plug in the Mains cord.



Turn off Power to quit Service Mode.

2-2. Reset the unit to the default settings

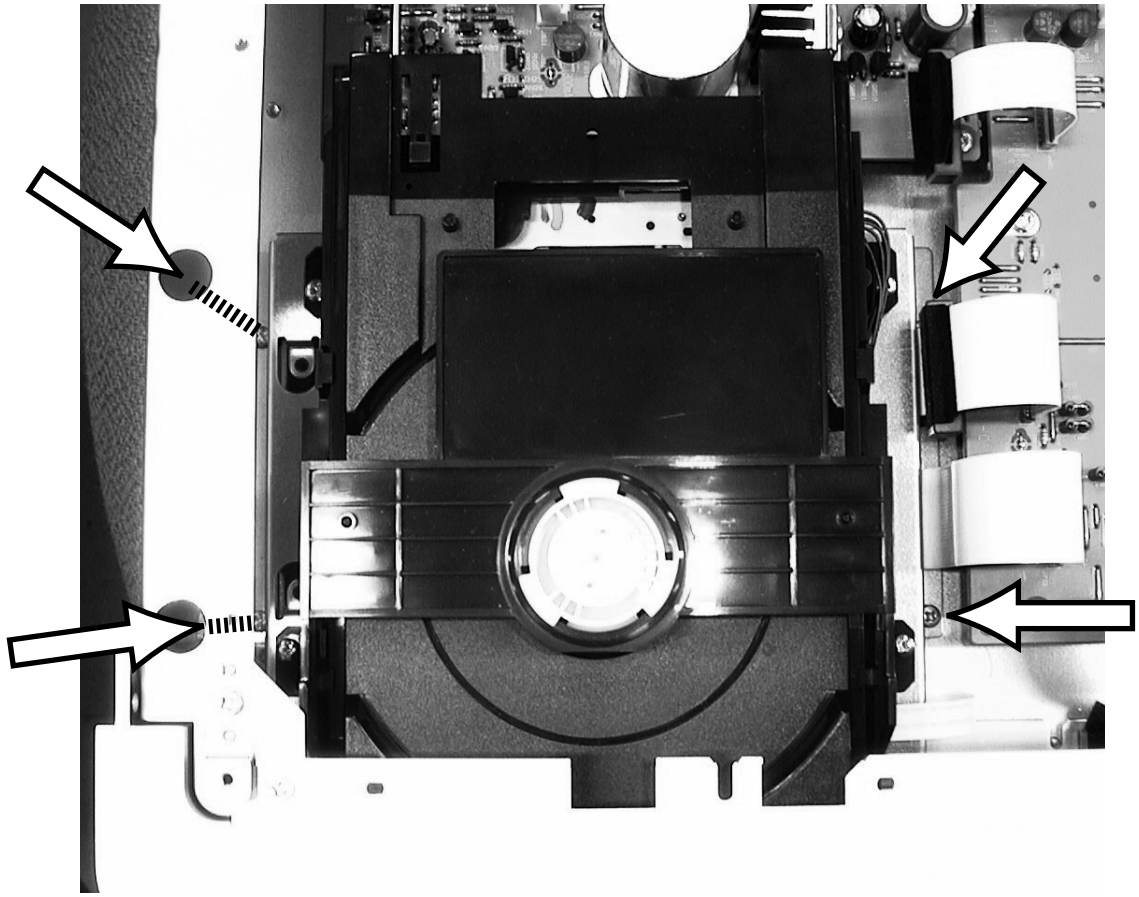
While pressing <**OPEN/CLOSE**>and<**NEXT**>plug in the Mains cord.



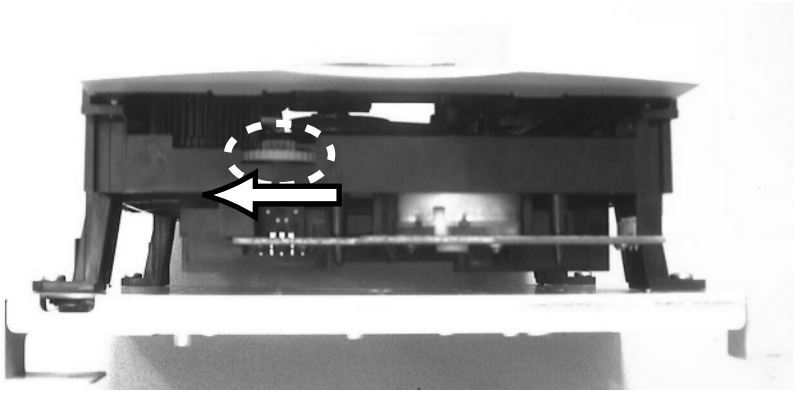
All the setting are restored to the default setting.

3. TAKING THE DISC OUT OF EMERGENCY

1. Remove 8 screws on the top cover and remove the top cover.
2. Remove 6 screws on the side panel and remove the side panel.
3. Remove Power SW. Link.
4. Remove 4 screws pointed with the arrows.

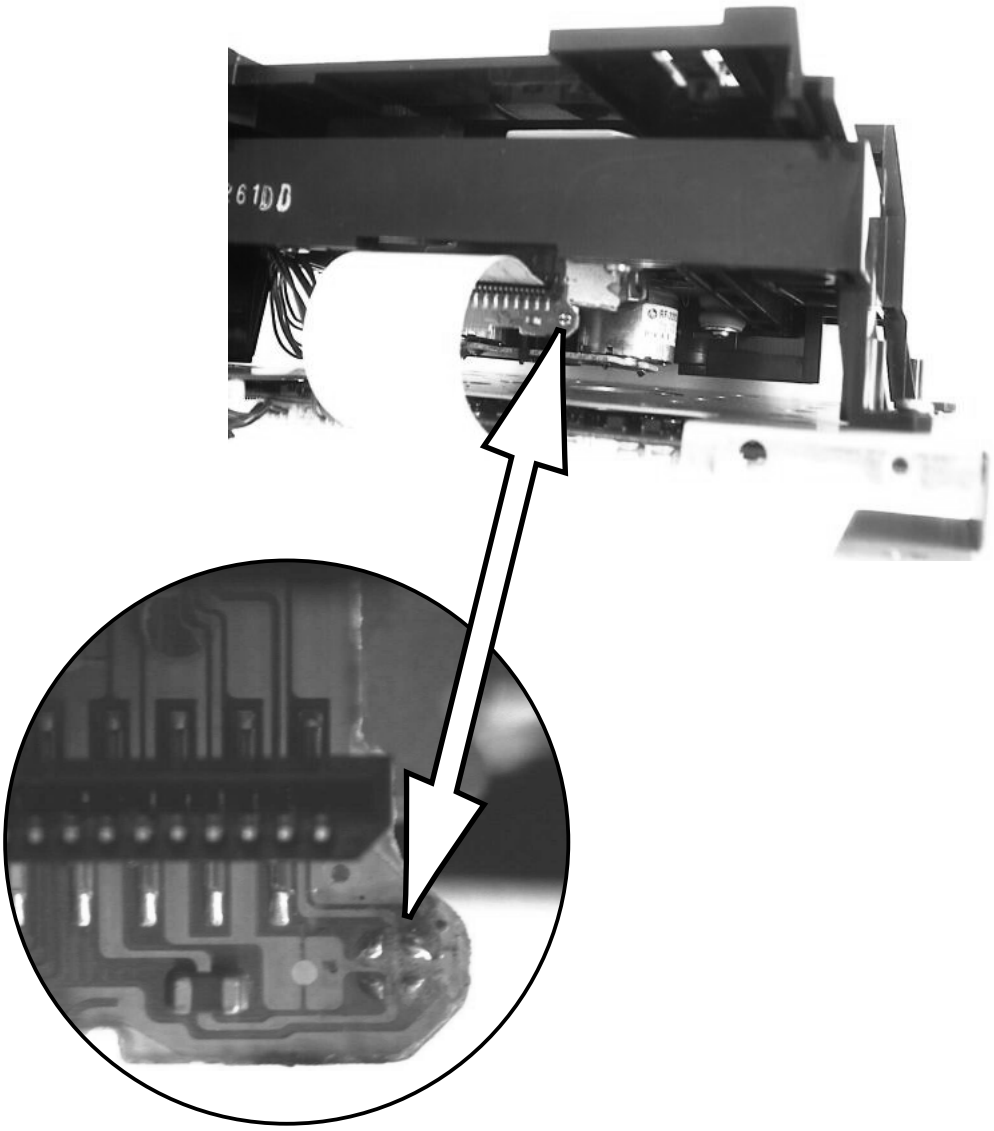


5. Disconnect all the wires at the right.
6. Remove the Mecha. component.
7. Turn the gear to the direction shown with your finger and disc tray will opened.

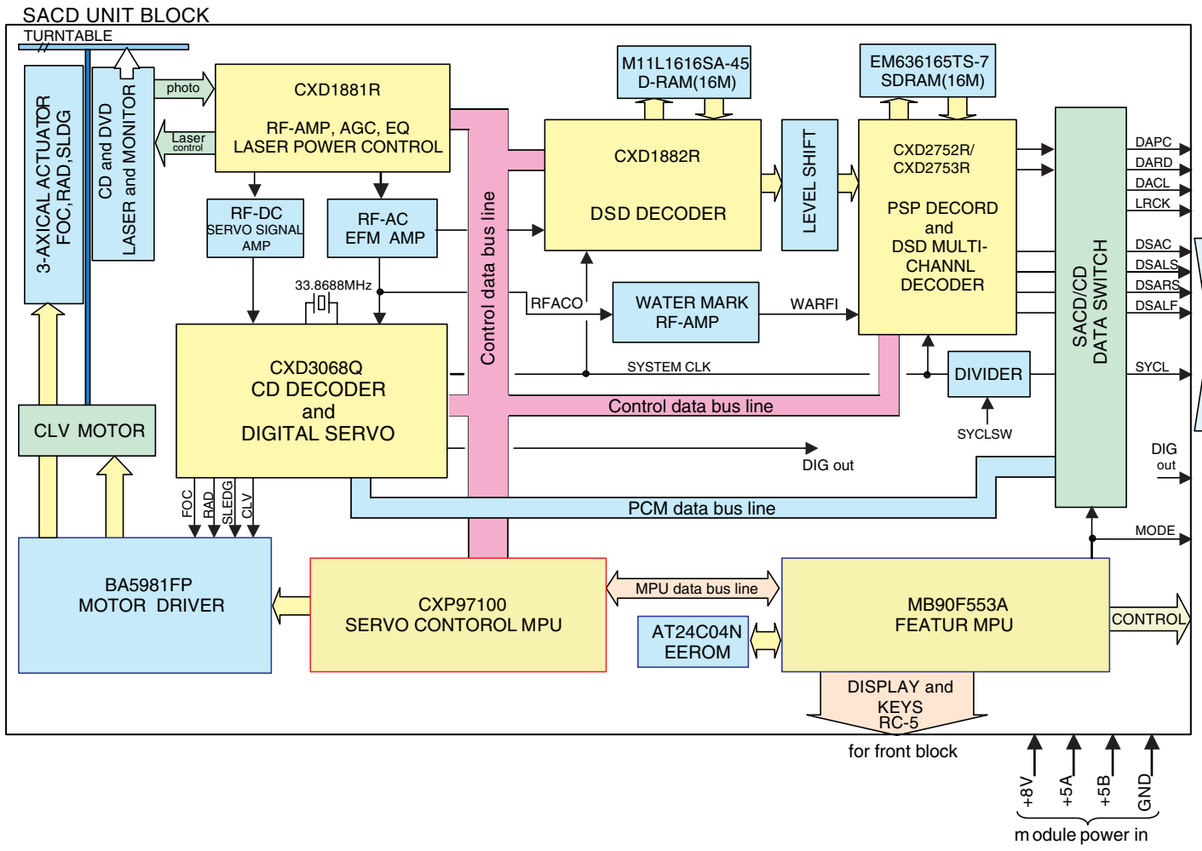


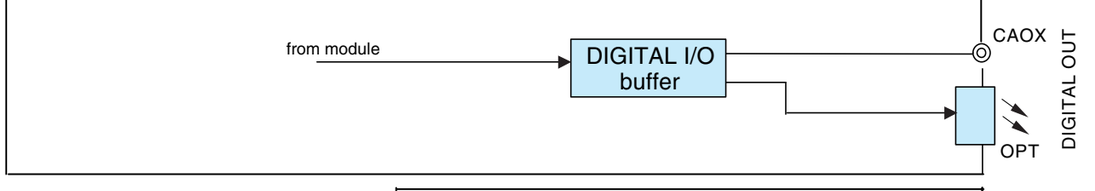
4. CAUTION Optical pick up and Servo Board

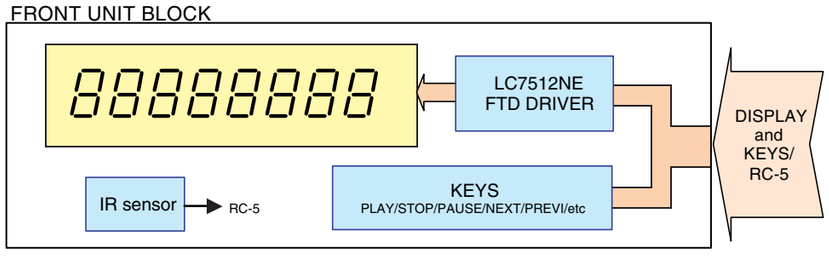
When removing the flat wire between Optical pick up and Servo Board (PV16),
Solder the four lands pointed by arrows to short the circuit.
Otherwise the LASER DIODE may be damaged by static electricity.

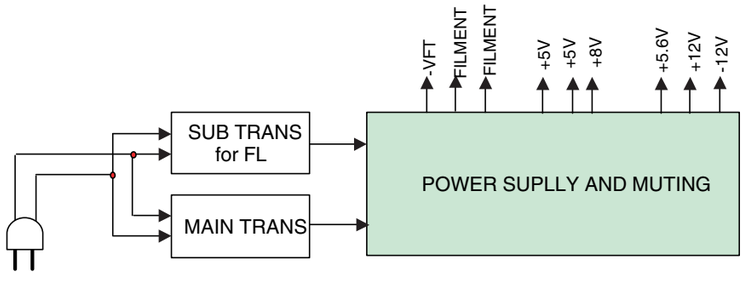


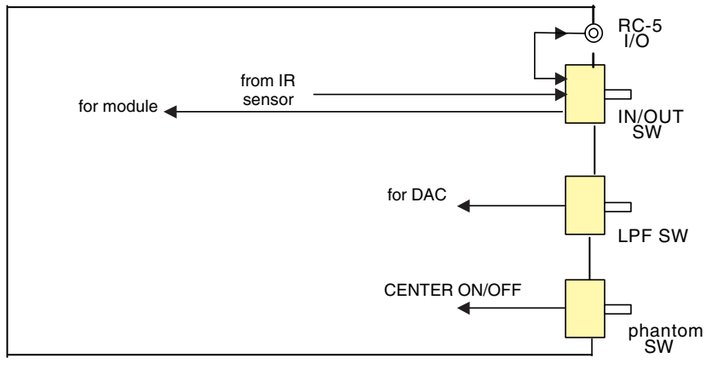
5. BLOCK DIAGRAM



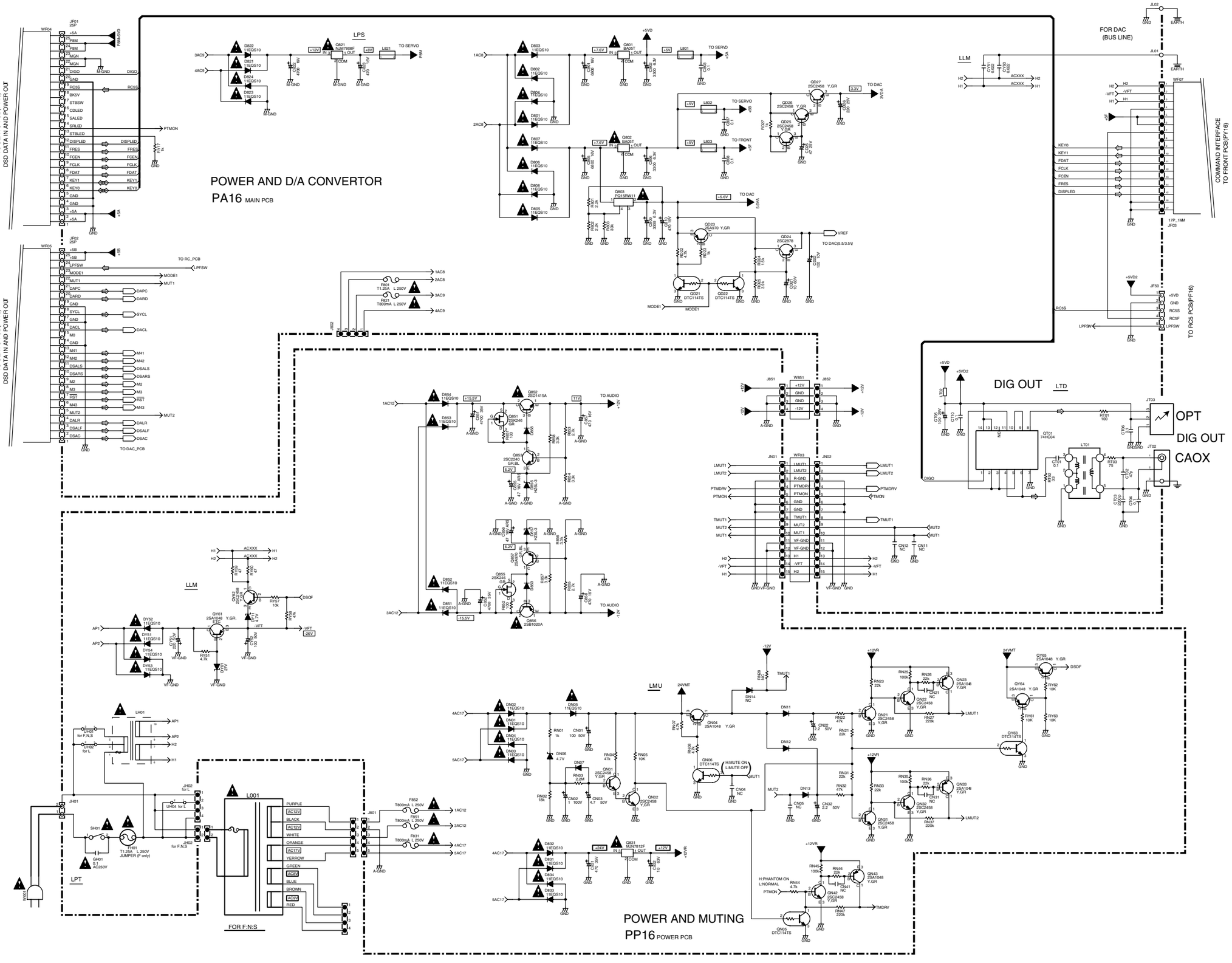








6. SCHEMATIC DIAGRAM



POWR & DAC PCB

PA16

6-CHANNEL DAC/LPF (AUDIO)

FROM 2/5 PAGE (DAC BUS)

LDA

1CH/2CH

3CH/4CH

5CH/6CH

DIFFERENCIAL

CURRENT LPF

LFB

QD60 TC74VHC86F

QD60 CS4397

QD71 CS4397

QD41 CS4397

DAC DATA INPUT FIG

L.CH

R.CH

DACK

DAD1,3,5

SCLK

FRONT L.CH (WHT)

FRONT R.CH (RED)

SURROUND L.CH (WHT)

SURROUND R.CH (RED)

CENTER (BLK)

SUB WOOFER (BLK)

TO FRONT PHONES PWB

RF AMP AND ACTUTOR CONTROL

FROM OPTICAL UNIT

J101 25P 18M

Q101 CXD1881R

Q116 CXD3068Q

Q115 TC74LVX4053FT

Q109 NJM2137V

Q110 AD8062

Q102 NJM2115V

Q111 NJM2115V

Q112 NJM2903V

Q113 NJM2115V

Q114 NJM2903V

Q106 NJM3414AV

Q118 NJM3414AV

Q107 2SK3019

Q108 2SK3019

Q103 2SB798

Q104 2SB798

Q105 2SB798

D105 1SS301,DAN202U

D104 1SS300,DAP202U

D107 NC

D108 NC

Q119 TC7SHU04F

X101 33.8688MHz

IC117 BA3861FP

MOTOR DRIVER

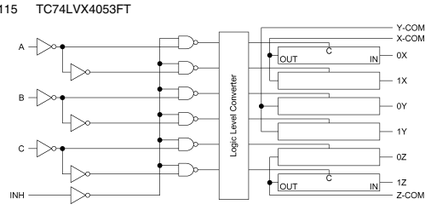
VC16(Refrence)

CD CLV

Q115 TC74LVX4053FT

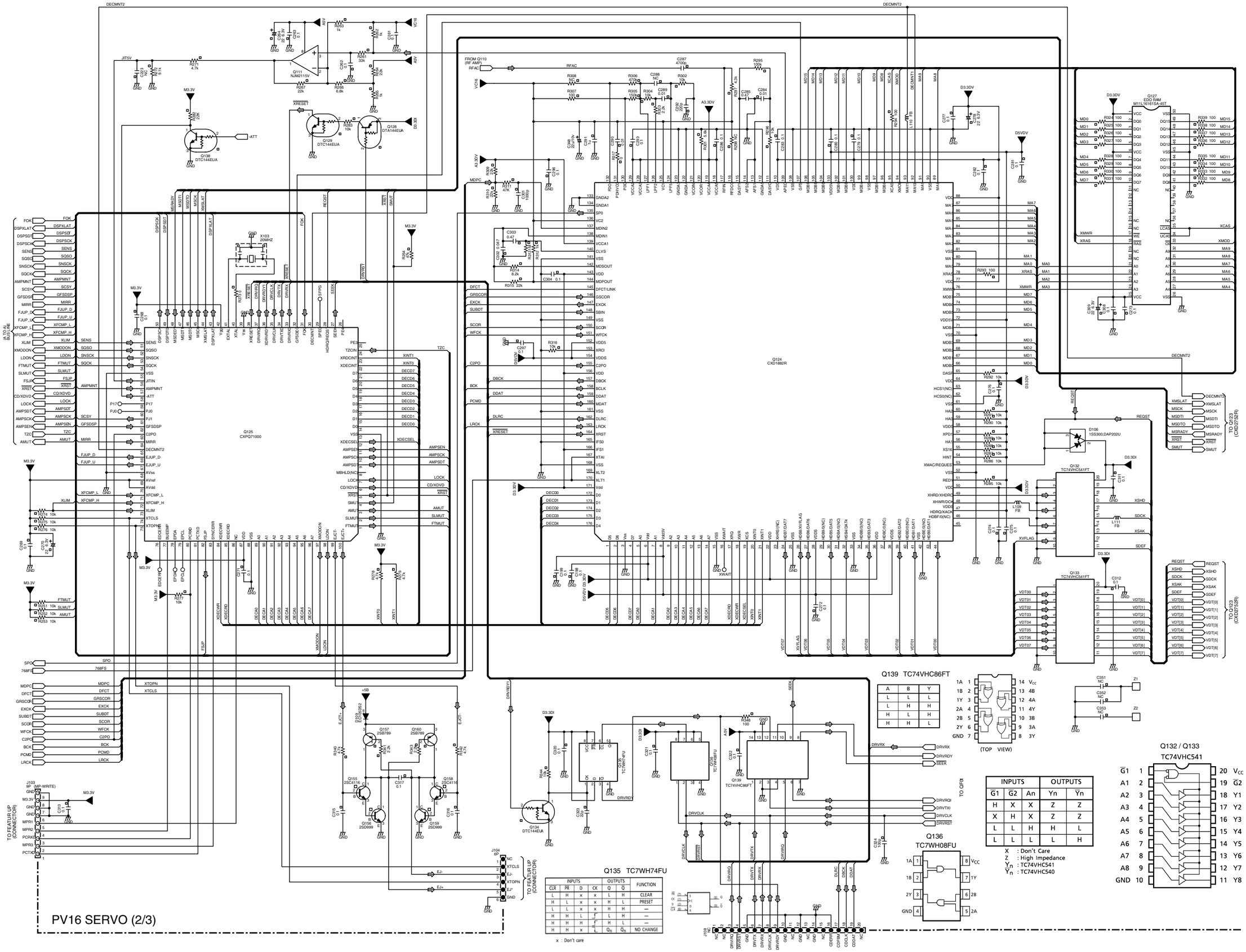
Control Inputs				"ON" Channel
Inhibit	C*	B	A	LVX4053FT
L	L	L	L	0X, 0Y, 0Z
L	L	L	H	1X, 0Y, 0Z
L	L	H	L	0X, 1Y, 0Z
L	L	H	H	1X, 1Y, 0Z
L	H	L	L	0X, 0Y, 1Z
L	H	L	H	1X, 0Y, 1Z
L	H	H	L	0X, 1Y, 1Z
L	H	H	H	1X, 1Y, 1Z
H	X	X	X	None

X: Don't care, *: Except LVX4052FT



PV16 SERVO (1/3)

DVD DECORD CONTROL MPU



INPUTS				OUTPUTS		FUNCTION
CLR	PR	D	CK	Q	Q̄	
L	H	x	x	L	H	CLEAR
H	L	x	x	H	L	PRESET
L	L	x	x	H	H	—
H	H	L	↑	L	H	—
H	H	H	↑	H	L	—
H	H	x	L	Q_n	$\bar{Q}_n$	NO CHANGE

× : Don't care

A	B	Y
L	L	L
L	H	H
H	L	H
H	H	L

(TOP VIEW)

INPUTS			OUTPUTS	
$\bar{G}1$	$\bar{G}2$	An	Yn	$\bar{Y}n$
H	X	X	Z	Z
X	H	X	Z	Z
L	L	H	H	L
L	L	L	L	H

X : Don't Care
Z : High Impedance
Yn : TC74VHC541
$\bar{Y}n$: TC74VHC540

FROM BUCK UP CKT

J109 5VU GND

A5V D5VDV D3.3DV A3.3DV D3.3CD A3.3CD M3.3V A3.3V

L122 L126 L128 L129 L120

Q152 NJM2391DL1-33 3.3V 1A — 3.3V — A5V

L132 FC L133 FC L121 FC L123 FC D3.3DS D3.3DI

Q151 NJM2391DL1-33 3.3V 1A — 3.3V — 5V — +3B

L125 L124 D2.6DS A2.6DS

Q153 NJM2391DL1-26 2.6V — 2.6V

RFAC FROM RF IC(Q110-1) — RFAC — WARFI

Q121 AD8062 — OP-AMP1 — OP-AMP2

A2.6DS

DECMNT2 XMSLAT MSCK MSDTO MSDTI MSRADY XRST SMUT PCMD BCK LRCK

DSD MULTI DECORDER

Q123 CXD2752R

D3.3DI

Q122 EM636165TS-7

DQ5 DQ4 DQ3 DQ2 DQ1 DQ0 VDIO5(GND) DCLK DCKE XWE XCAS XRAS VDIO6(3.3V) VSC6(GND) VDIO6(GND) VDC6(2.5V) VDIO7(3.3V) XSRQ XSHD SDCK XSAK SDEF SD0 SD1 SD2 SD3 SD4 SD5 SD6 SD7

REQST XSHD SDCK XSAK SDEF VDT[0-7]

768FS

DRVRST DRVRDY DRVRQI DRVTXI DRVRX DRVCLK SEEK -ATT

Q141 TC74VHC74FT

INPUTS				OUTPUTS		FUNCTION
CLR	PR	D	CK	Q	Q̄	
L	H	X	X	L	H	CLEAR
H	L	X	X	H	L	PRESET
L	L	X	X	H	H	—
H	H	L	↑	L	H	—
H	H	H	↑	H	L	—
H	H	X	↓	Qn	Q̄n	NO CHANGE

X : Don't Care

(TOP VIEW)

Q141 TC74VHC74FT — Q140 TC74VHC00FT

384/192 R350 10

SA=CUSTOM IS LOW, NOMAL IS HIGH
CD=ALL TIME LOW

Q140 TC74VHC00FT

A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

(TOP VIEW)

Q126 TC74VHC157FT

Inputs				Output
STB	SEL	A	B	
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

H : High
L : Low
X : H or L

Q137 TC74VHC541FT

INPUTS			OUTPUTS	
G1	G2	An	Yn	Yn
H	X	X	Z	Z
X	H	X	Z	Z
L	L	H	H	L
L	L	L	L	H

X : Don't Care
Z : High Impedance
Yn : TC74VHC541
Yn : TC74VHC540

TC74VHC541

QF01 CXP85R53A FLASH UCOM

POWER STNDBY

MASTER RESET — RF02 330K — CF02 0.1 — QF02 S-80843ALNP 4.3 V

XF01 8MHZ

OPTION
SACD STERED : 0 OHM
SACD MULTI : DELETE

QF05 NC — R351 22K — R352 NC — R353 NC — CF13 2200p

MODE1(CD/SA SELECT)

CD—L,SA—H

FCLK FDAT WRDAT FMD0 FMD2 MSRST

CONNECTOR FOR MP-WRITING

J110

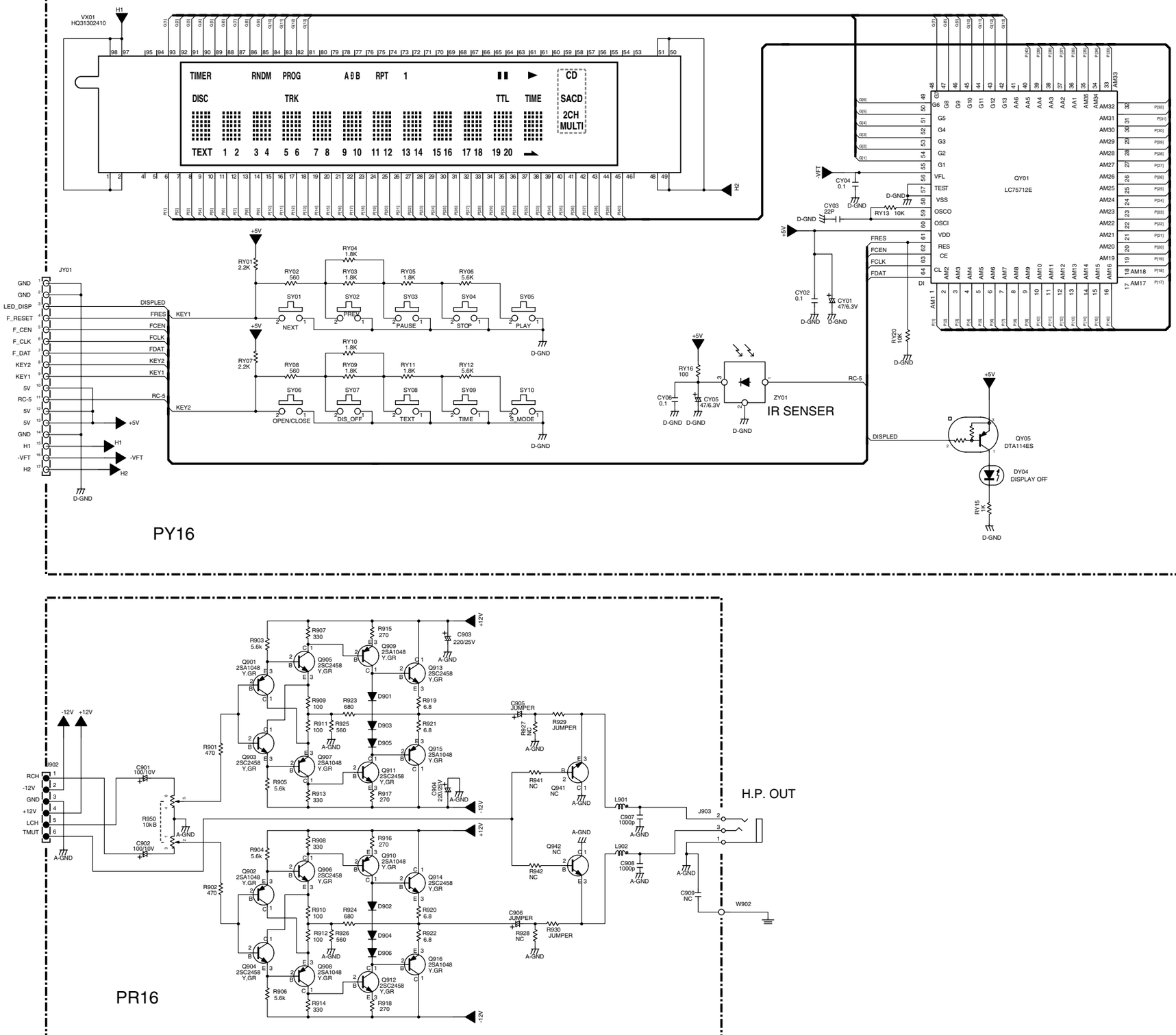
TO MAIN PCB (PP16)
FRONT DATA POWER

WF04

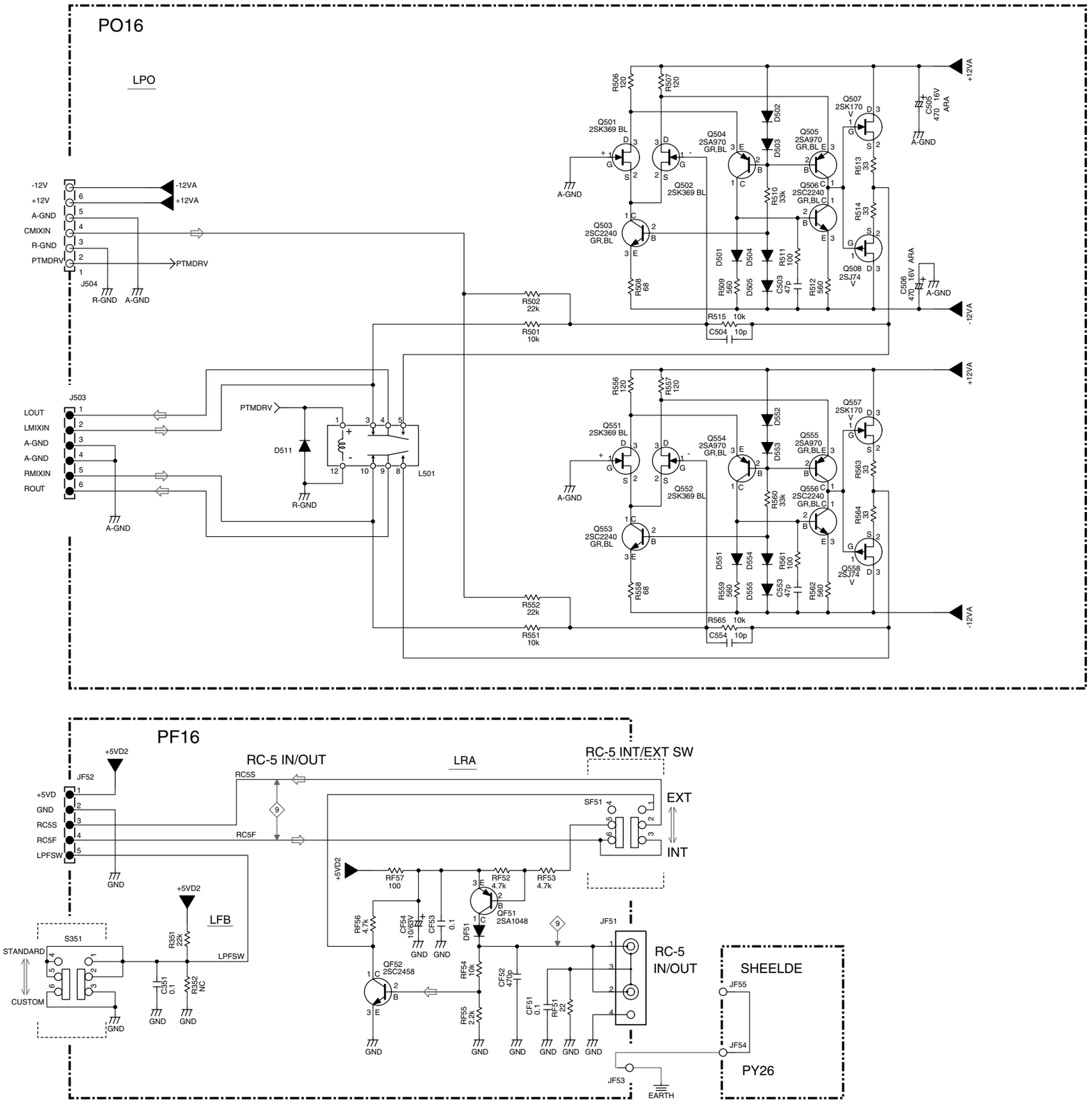
FOR MAIN PCB (PP16)
DSD DATA OUT AND POWER IN

WF05

DSDG1 DSDG2 DSDG3


PY16
VX01
HQ31302410
H1
H2
TIMER
RNDM
PROG
A-B
RPT
1
DISC
TRK
TTL
TIME
CD
SACD
2CH
MULTI
TEXT
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
QY01
LC75712E
VFL
TEST
VSS
OSCO
OSCI
VDD
RES
CE
CL
DI
FRES
FCEN
FCLK
FDAT
CY04 0.1
CY03 22P
RY13 10K
CY02 0.1
CY01 47/6.3V
RY20 10K
JY01
GND
LED_DISP
F_RESET
F_CEN
F_CLK
F_DAT
KEY2
KEY1
5V
RC-5
-VFT
DISPLED
KEY1
KEY2
RY01 2.2K
RY02 560
RY03 1.8K
RY04 1.8K
RY05 1.8K
RY06 5.6K
SY01
SY02
SY03
SY04
SY05
NEXT
PRE
PAUSE
STOP
PLAY
RY07 2.2K
RY08 560
RY09 1.8K
RY10 1.8K
RY11 1.8K
RY12 5.6K
SY06
SY07
SY08
SY09
SY10
OPEN/CLOSE
DIS_OFF
TEXT
TIME
S_MODE
D-GND
RY16 100
CY06 0.1
CY05 47/6.3V
ZY01
IR SENSER
QY05
DTA114ES
DY04
DISPLAY OFF
RY15 1K

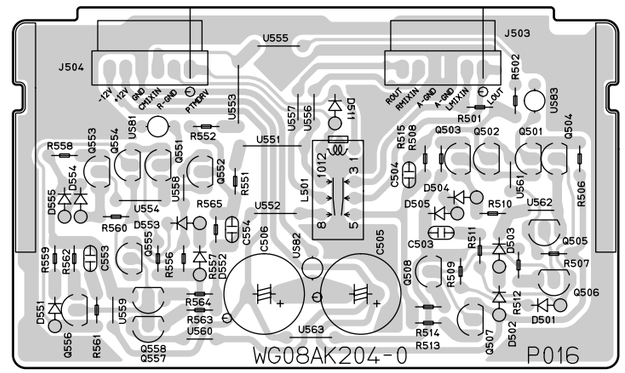
PR16
J902
RCH
-12V
GND
+12V
LCH
TMUT
A-GND
C901 100/10V
C902 100/10V
R950 10kB
R901 470
R902 470
R903 5.6k
R904 5.6k
R905 5.6k
R906 5.6k
R907 330
R908 330
R909 100
R910 100
R911 100
R912 100
R913 330
R914 330
R915 270
R916 270
R917 270
R918 270
R919 6.8
R920 6.8
R921 6.8
R922 6.8
R923 680
R924 680
R925 560
R926 560
Q901 2SA1048 Y.GR
Q902 2SA1048 Y.GR
Q903 2SC2458 Y.GR
Q904 2SC2458 Y.GR
Q905 2SC2458 Y.GR
Q906 2SC2458 Y.GR
Q907 2SA1048 Y.GR
Q908 2SA1048 Y.GR
Q909 2SA1048 Y.GR
Q910 2SA1048 Y.GR
Q911 2SC2458 Y.GR
Q912 2SC2458 Y.GR
Q913 2SC2458 Y.GR
Q914 2SC2458 Y.GR
Q915 2SA1048 Y.GR
Q916 2SA1048 Y.GR
D901
D902
D903
D904
D905
D906
C903 220/25V
C904 220/25V
+12V
-12V
C905 JUMPER
C906 JUMPER
R927 NC
R928 NC
R929 JUMPER
R930 JUMPER
R941 NC
R942 NC
Q941 NC
Q942 NC
L901
L902
C907 1000p
C908 1000p
C909 NC
J903
W902
H.P. OUT



7. PARTS LOCATION

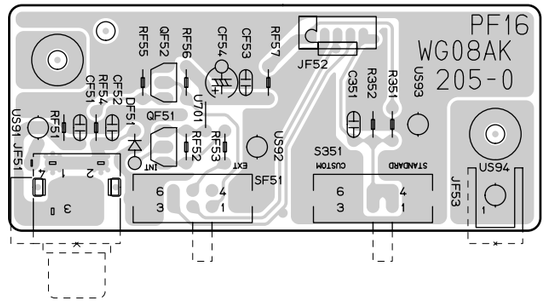
PO16

Q553 Q554 Q551 Q552 Q503 - Q501 Q504
Q555 - Q558 Q508 - Q505

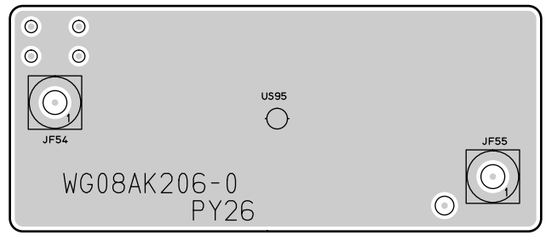


PF16

QF52 QF51



PY26



PA16

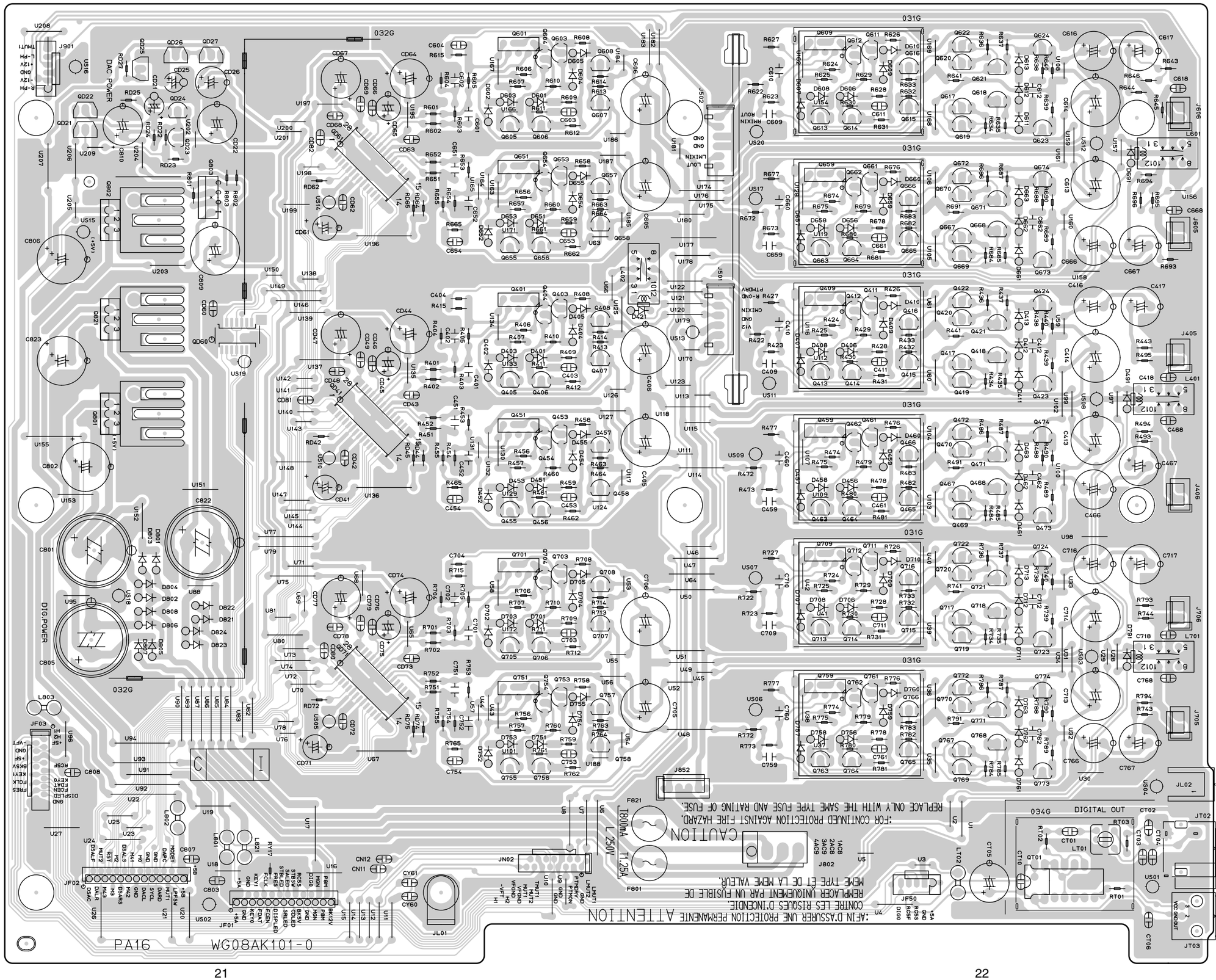
QD21 - QD27
Q802 Q803
Q821 QD60
Q801

QD61
QD41
QD71

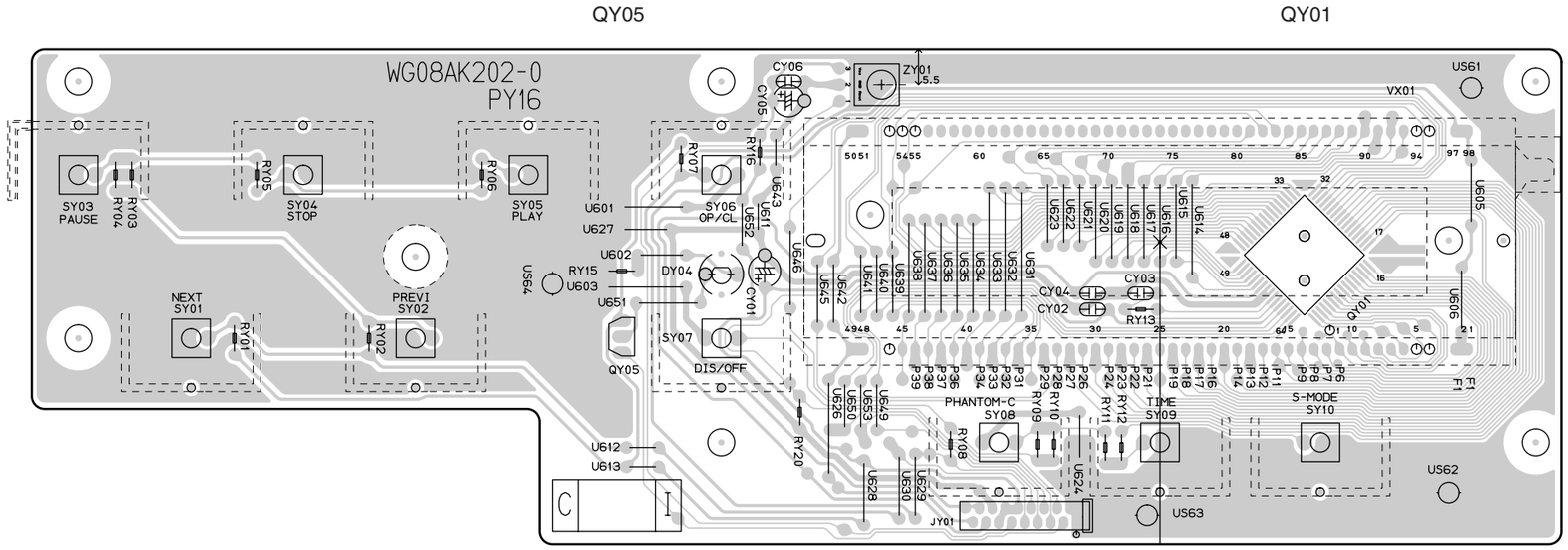
Q601 Q603 - Q608
Q651 Q653 - Q658
Q401 Q403 - Q408
Q451 Q453 - Q458
Q701 Q703 - Q708
Q751 Q753 - Q758

Q609 Q611 - Q616
Q659 Q661 - Q666
Q409 Q411 - Q416
Q459 Q461 - Q466
Q709 Q711 - Q716
Q759 Q761 - Q766

Q617 - Q624
Q667 - Q674
Q417 - Q424
Q467 - Q474
Q717 - Q724
Q747 - Q474 QT01

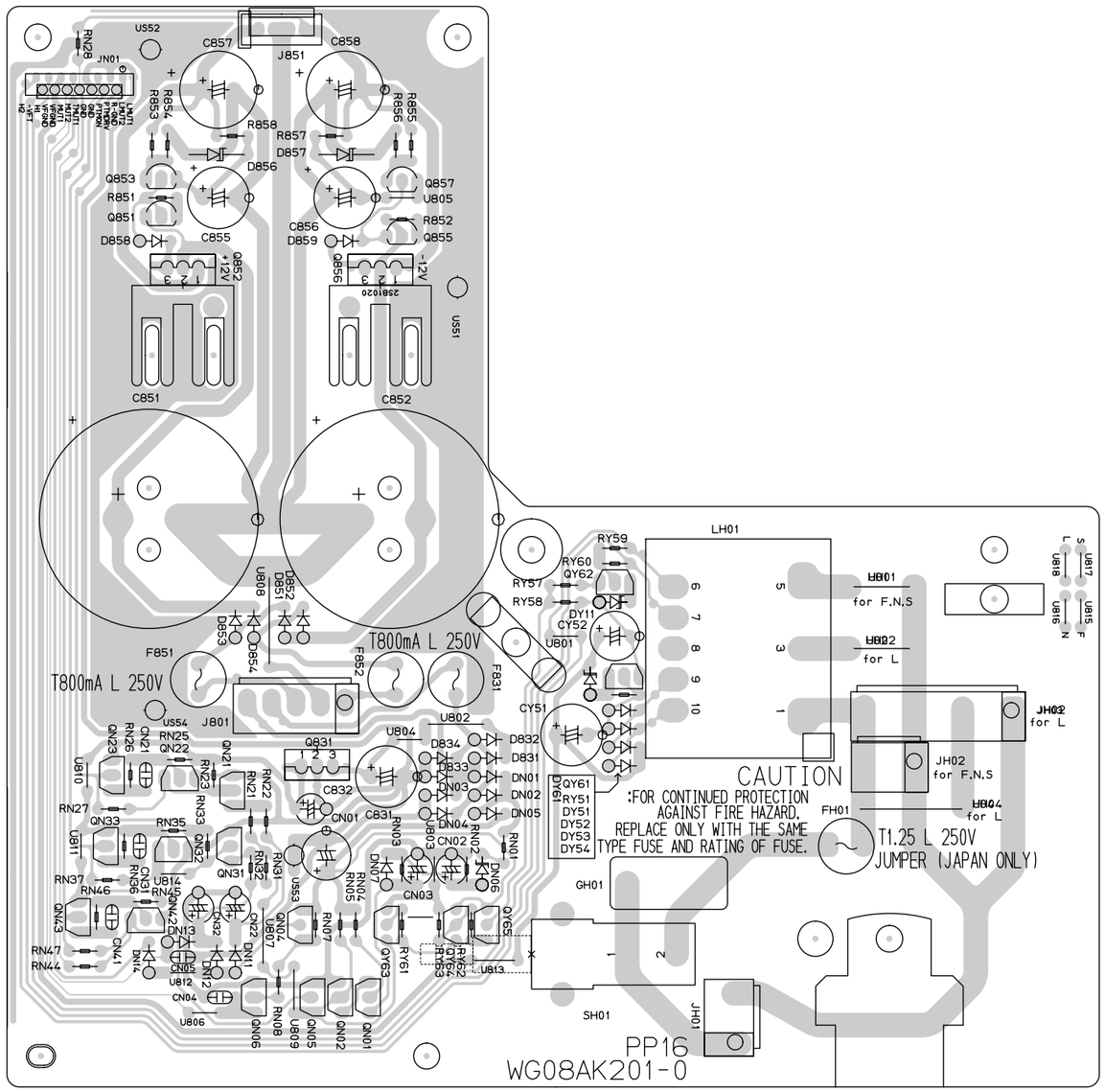


PY16



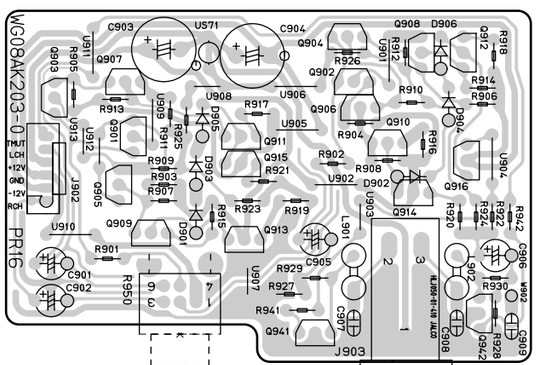
PP16

Q853 Q857
Q851 Q855
Q852 Q856
QY62
QY61
Q831
QN23 QN22 QN21
QN33 QN32 QN31
QN43 QN42 QN04 QY63 QY64 QY65
QN06 QN05 QN02 QN01

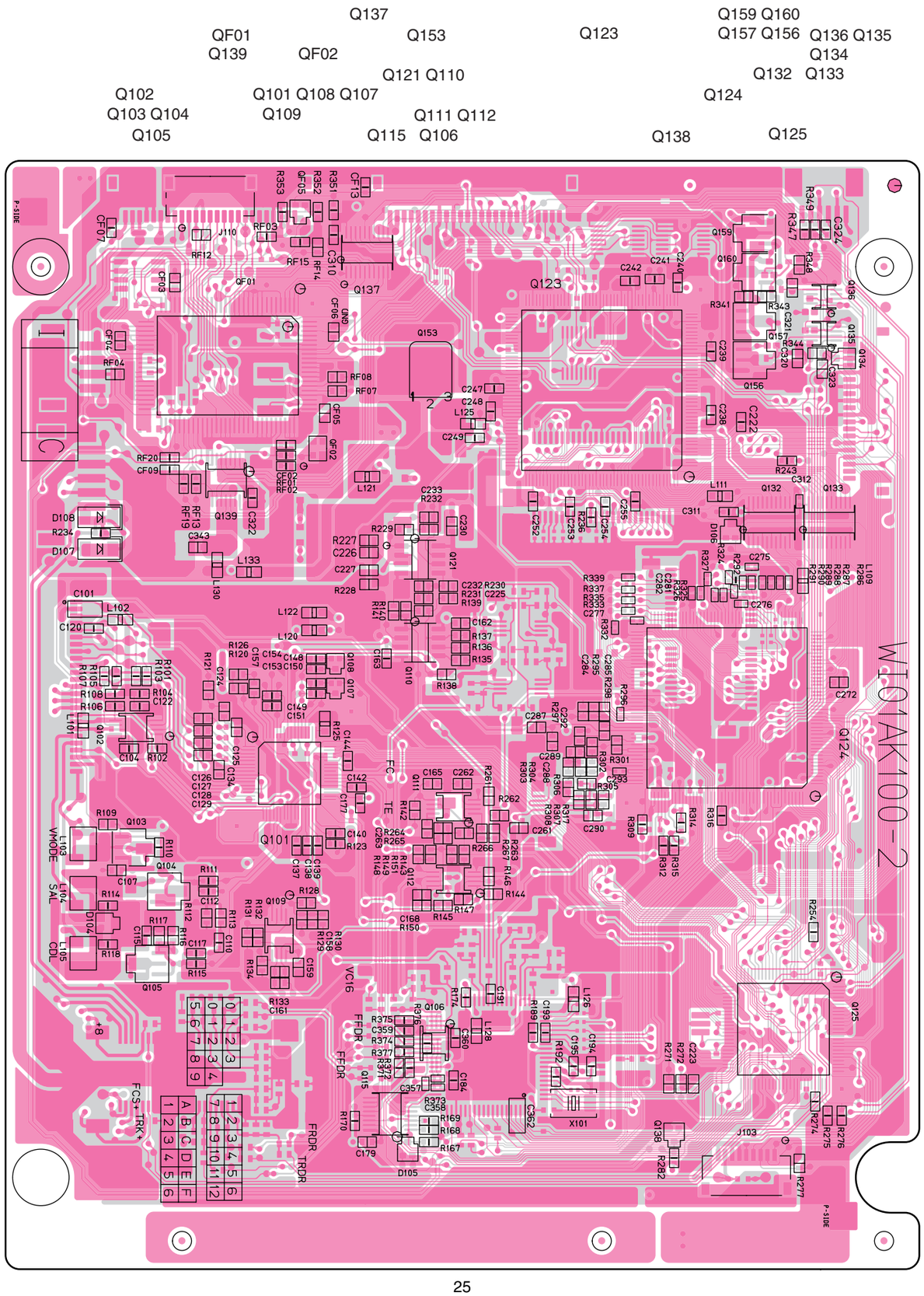


PR16

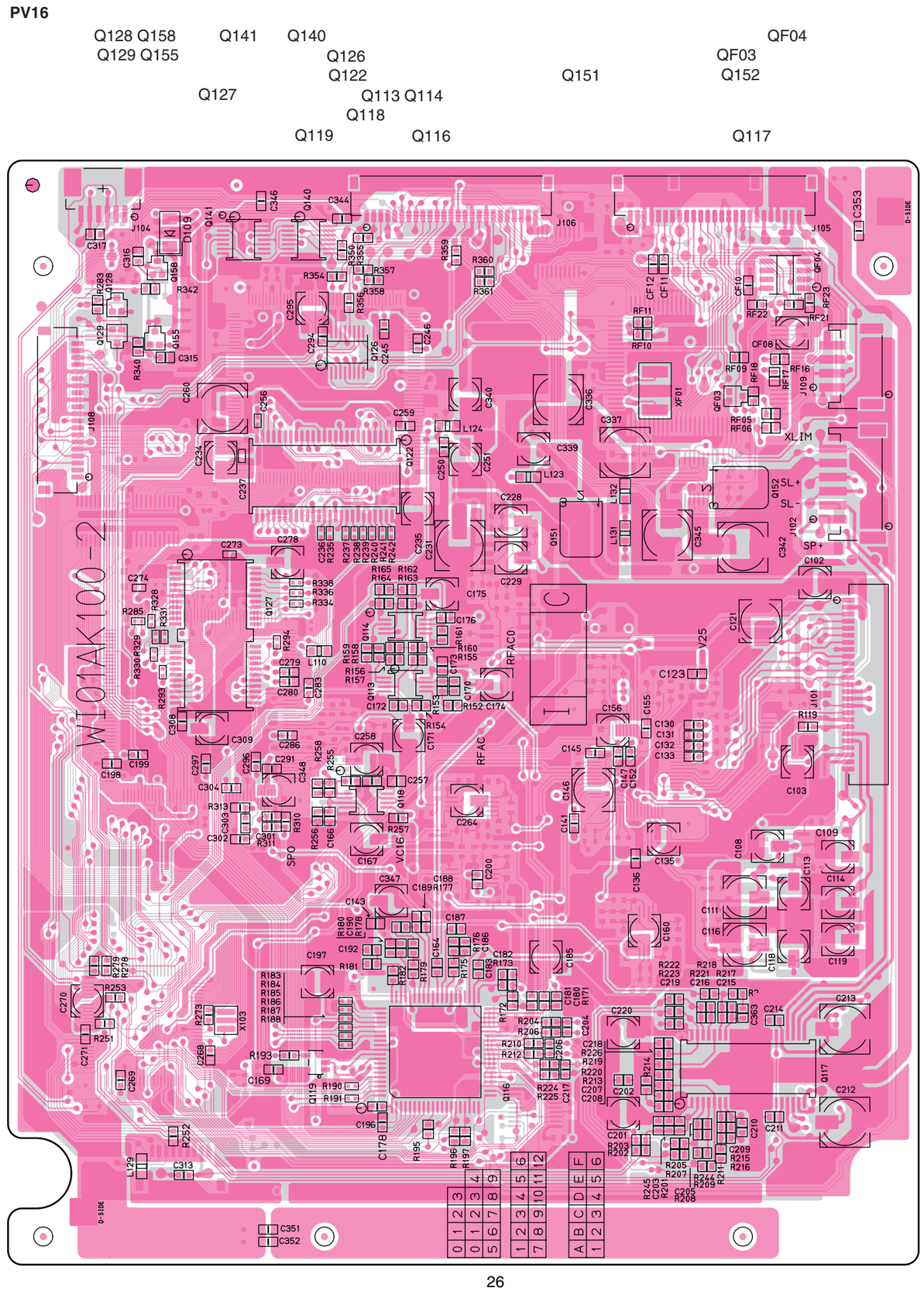
Q904 Q908 Q912
Q903 Q907 Q902 Q906
Q905 Q901 Q911 Q915 Q910 Q914 Q916
Q909 Q913 Q941 Q942



PV16


Q137
QF01
Q153
Q123
Q159 Q160
Q157 Q156
Q136 Q135
Q139
QF02
Q134
Q121 Q110
Q132 Q133
Q102
Q101 Q108 Q107
Q124
Q103 Q104
Q109
Q111 Q112
Q105
Q115 Q106
Q138
Q125
W101AK100-2
P-SIDE

PV16


Q128 Q158
Q141
Q140
QF04
Q129 Q155
Q126
QF03
Q122
Q151
Q152
Q127
Q113 Q114
Q118
Q119
Q116
Q117
W101AK100-2
D-SIDE

8. MICROPROCESSOR AND IC DATA

Q116 : CXD3068Q

Pin Description

Pin No	Symbol	I/O		Description
1	DVDD0	—		Digital power supply.
2	XRST	I		System reset. Reset when low.
3	MUTE	I		Mute input (low: off, high: on)
4	DATA	I		Serial data input from CPU.
5	XLAT	I		Latch input from CPU. Serial data is latched at the falling edge.
6	CLOK	I		Serial data transfer clock input from CPU.
7	SENS	O	1, 0	SENS output to CPU.
8	SCLK	I		SENS serial data readout clock input.
9	ATSK	I/O	1, 0	Anti-shock input/output.
10	WFCK	O	1, 0	WFCK output.
11	XUGF	O	1, 0	XUGF output. MNT0 or RFCK is output by switching with the command.
12	XPCK	O	1, 0	XPCK output. MNT1 is output by switching with the command.
13	GFS	O	1, 0	GFS output. MNT2 or XROF is output by switching with the command.
14	C2PO	O	1, 0	G2PO output. MNT3 or GTOP is output by switching with the command.
15	SCOR	O	1, 0	Outputs a high signal when either subcode sync S0 or S1 is detected.
16	C4M	O	1, 0	4.2336MHz output. 1/4 frequency division output for V16M in CAV-W mode or variable pitch mode.
17	WDCK	O	1, 0	Word clock output. f = 2Fs. GRSCOR is output by the command switching.
18	DVSS0	—	—	Digital GND.
19	COUT	I/O	1, 0	Track count signal I/O.
20	MIRR	I/O	1, 0	Mirror signal I/O.
21	DFCT	I/O	1, 0	Detect signal I/O.
22	FOK	I/O	1, 0	Focus OK signal I/O.
23	PWMI	I		Spindle motor external control input.
24	LOCK	I/O	1, 0	GFS is sampled at 460Hz; when GFS is high, this pin outputs a high signal. If GFS is low eight consecutive samples, this pin outputs low. Input when LKIN = 1.
25	MDP	O	1, Z, 0	Spindle motor servo control output.
26	SSTP	I		Disc innermost track detection signal input.
27	FSTO	O	1, 0	2/3 frequency division output for XTAI pin.
28	DVDD1	—	—	Digital power supply.
29	SFDR	O	1, 0	Sled drive output.
30	SRDR	O	1, 0	Sled drive output.
31	TFDR	O	1, 0	Tracking drive output.
32	TRDR	O	1, 0	Tracking drive output.
33	FFDR	O	1, 0	Focus drive output.
34	FRDR	O	1, 0	Focus drive output.
35	DVSS1	—	—	Digital GND.
36	TEST	I		Test. Normally, GND.
37	TES1	I		Test. Normally, GND.
38	VC	I		Center voltage input.
39	FE	I		Focus error signal input.
40	SE	I		Sled error signal input.
41	TE	I		Tracking error signal input.
42	CE	I		Center servo analog input.
43	RFDC	I		RF signal input.
44	ADIO	O	Analog	Test. No connected.
45	AVSS0	—	—	Analog GND.
46	IGEN	I		Constant current input for operational amplifier.
47	AVDD0	—	—	Analog power supply.
48	ASYO	O	1, 0	EFM full-swing output. (low = Vss, high = VDD)
49	ASYI	I		Asymmetry comparator voltage input.
50	RFAC	I		EFM signal input.
51	AVSS1	—	—	Analog GND.
52	CLTV	I		Multiplier VCO1 control voltage input.
53	FILO	O	Analog	Master PLL filter output (slave = digital PLL).
54	FILI	I		Master PLL filter input.
55	PCO	O	1, Z, 0	Master PLL charge pump output.
56	AVDD1	—	—	Analog power supply.
57	BIAS	I		Asymmetry circuit constant current input.
58	VCTL	I		Wide-band EFM PLL VCO2 control voltage input.
				Wide-band EFM PLL VCO2 oscillation output. Serves as wide-band EFM
59	V16M	I/O	1, 0	PLL clock input by switching with the command.
60	VPCO	O	1, Z, 0	Wide-band EFM PLL charge pump output.
61	DVDD2	—	—	Digital power supply.
62	ASYE	I		Asymmetry circuit on/off (low = off, high = on).
63	MD2	I		Digital Out on/off control (low = off, high = on).
64	DOUT	O	1, 0	Digital Out output.
65	LRCK	O	1, 0	D/A interface. LR clock output. f = Fs
66	PCMD	O	1, 0	D/A interface. Serial data output (two's complement, MSB first).
67	BCK	O	1, 0	D/A interface. Bit clock output. Outputs a high signal when the playback disc has emphasis, and a low
68	EMPH	O	1, 0	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.
69	XTSL	I		Crystal selection input. Low when the crystal is 16.9344MHz; high when it is 33.8688MHz.
70	DVSS2	—	—	Digital GND.
71	XTAI	I		Crystal oscillation circuit input. When the master clock is input externally, input it from this pin.
72	XTAO	O		Crystal oscillation circuit output.
73	SOUT	O	1, 0	Serial data output in servo block.
74	SOCK	O	1, 0	Serial data readout clock output in servo block.
75	XOLT	O	1, 0	Serial data latch output in servo block.
76	SQSO	O	1, 0	Sub-Q 80-bit, PCM peak or level data outputs. CD TEXT data output.
77	SQCK	I		SQSO readout clock input.
78	SCSY	I		GRSCOR resynchronization input.
79	SBSO	O	1, 0	Sub-Q P to W serial output.
80	EXCK	I		SBSO readout clock input.

Notes)

PCMD is a MSB first, two's complement output.

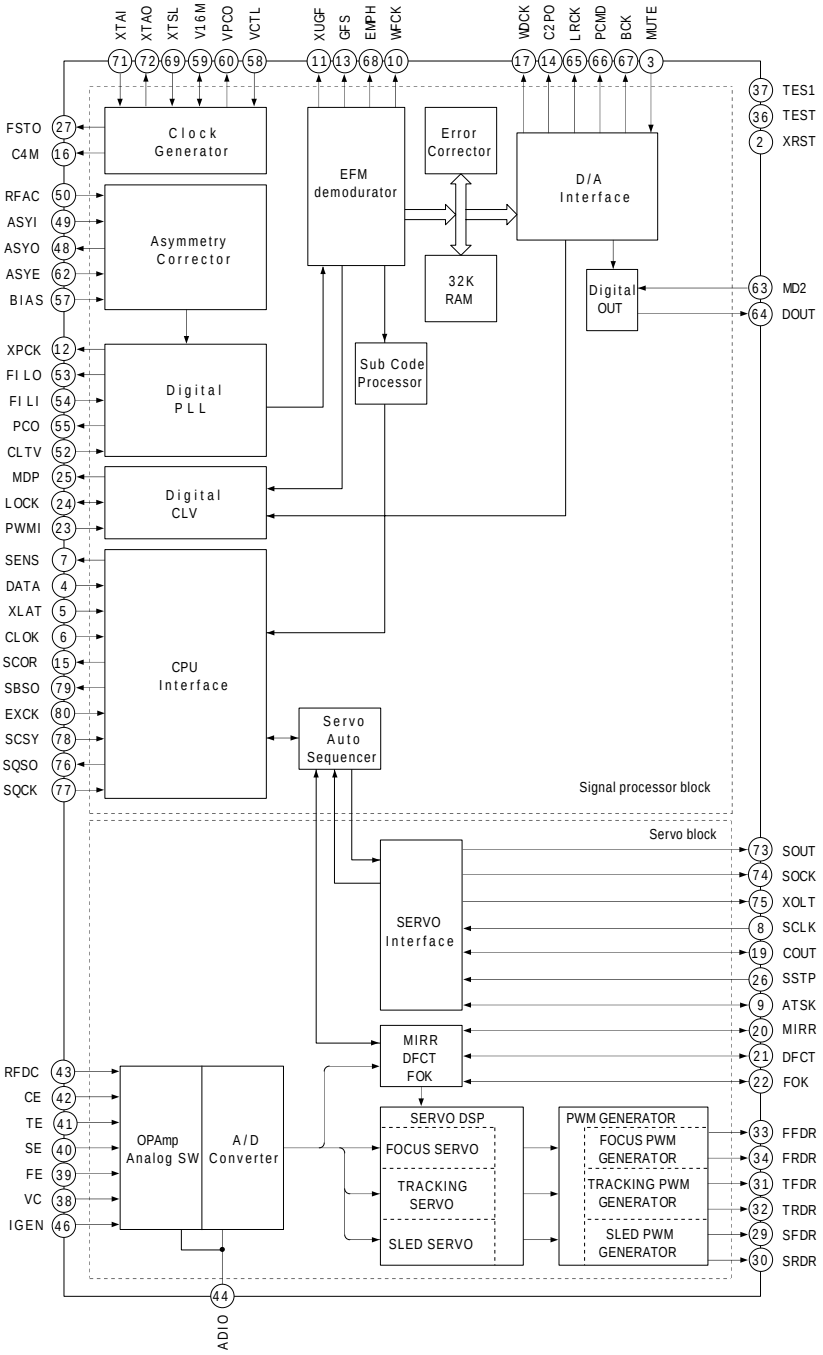
XUGF is the frame sync obtained from the EFM signal, and is negative pulse. It is the signal before sync protection.

XPCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.

The GFS signal goes high when the frame sync and the insertion protection timing match.

C2PO represents the data error status.

Q116 : CXD3068Q



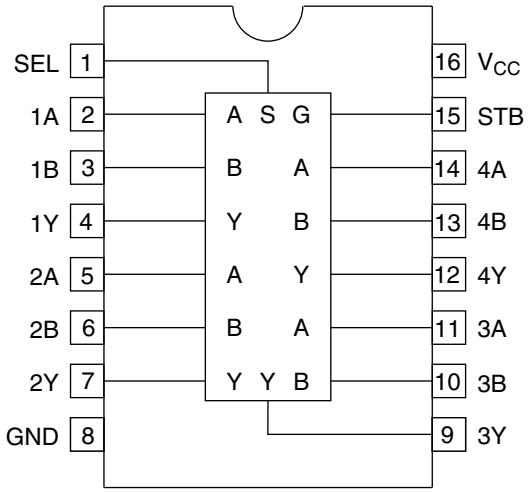
Q126 : TC74VHC157

Inputs				Output
STB	SEL	A	B	
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

H : High

L : Low

X :



Q101 : CXD1881R

Pin Description

Power Supply Pins

Name	Type	Description
VPA	—	Power supply pin for the RF block and serial port
VPB	—	Power supply pin for the servo block
VNA	—	Ground pin for the RF block and serial port
VNB	—	Ground pin for the servo block
V33	—	Power supply pin for the output buffers
V25	—	Reference power supply for the servo output

Input Pins

Name	Type	Description
DVDRFP, DVDRFN	I	RF SIGNAL INPUTS: Differential RF signal attenuator input pins.
RFSIN	I	RF SIGNAL INPUT: Single-ended RF signal attenuator input pin.
AIP, AIN	I	AGC AMPLIFIER INPUTS: Differential AGC amplifier input pins.
DIP, DIN	I	ANALOG INPUTS FOR RF SINGLE BUFFER: Differential analog inputs to the RF single-end output buffer and full wave rectifier.
A, B, C, D	I	PHOTO DETECTOR INTERFACE INPUTS: Inputs from the main beam photo detector matrix outputs.
A2, B2, C2, D2	I	PHOTO DETECTOR INTERFACE INPUTS: AC coupled inputs for the DPD from the main beam photo detector matrix outputs.
CD_A, B, C, D	I	CD PHOTO DETECTOR INTERFACE INPUTS: CD_A, B, C, D come from the CD main beam photo detector matrix outputs.
CD_E, F	I	CD PHOTO DETECTOR INTERFACE INPUTS: CD side beam photo dector outputs and used for the CD tracking detection.
MIN	I	RF SIGNAL INPUT FOR MIRROR: AC coupled inputs for the mirror dection circuit from MEVO.
DVDPD	I	APC INPUT: DVD APC input pin from the monitor photo diode.
CDPD	I	APC INPUT: CD APC input pin from the monitor photo diode.
LDON	I	APC OUTPUT ON/OFF: APC output control pin. A high level activates LD output. (open low)
LINK	I	LINKING SIGNAL INPUT PIN: In the linking area, this pin goes high and the Mirror and TE outputs are disabled, when the link signal is enabled. (open low)

Output Pins

Name	Type	Description
ATOP, ATON	O	DIFFERENTIAL ATTENUATOR OUTPUTS: Attenuator outputs.
FNP, FNN	O	DIFFERENTIAL NORMAL OUTPUTS: Filter normal outputs.
RFAC	O	SINGLE-ENDED NORMAL OUTPUT: Single-ended RF output.
RFDC	O	RF SIGNAL OUTPUT: Single-ended RF summing output reference to VPB-2.4 (V).
FE	O	FOCUSING ERROR SIGNAL OUTPUT: Focus error output reference to V125.
TE	O	TRACKING ERROR SIGNAL OUTPUT: Tracking error output reference to V125.
CE	O	CENTER ERROR SIGNAL OUTPUT: Center error output reference to V125.
MEVO	O	RFDDC BOTTOM ENVELOPE OUTPUT: Bottom envelope, PI or bottom clamped RF envelope signal output for mirror detection.
DFT	O	DEFECT OUTPUT: CMOS output (V33 or VPB). When the PI signal level is below the detection level or when the RF signal level is below the detection level, the DFT output goes high. This output is selected by serial port.
MIRR	O	MIRROR DETECT OUTPUT: Mirror detect comparator output. CMOS output (V33 or VPB).
PI	O	PULL-IN SIGNAL OUTPUT: The summing signal output of A, B, C, D, or CD_A, B, C, D. Reference to V25/3.
DVDLD	O	APC OUTPUT: DVD APC output pin to control the laser power.
CDLD	O	APC OUTPUT: CD APC output pin to control the laser power.
MNTR	O	MONITOR OUTPUT: Monitor output signal is selected by PIOR bit7-5.

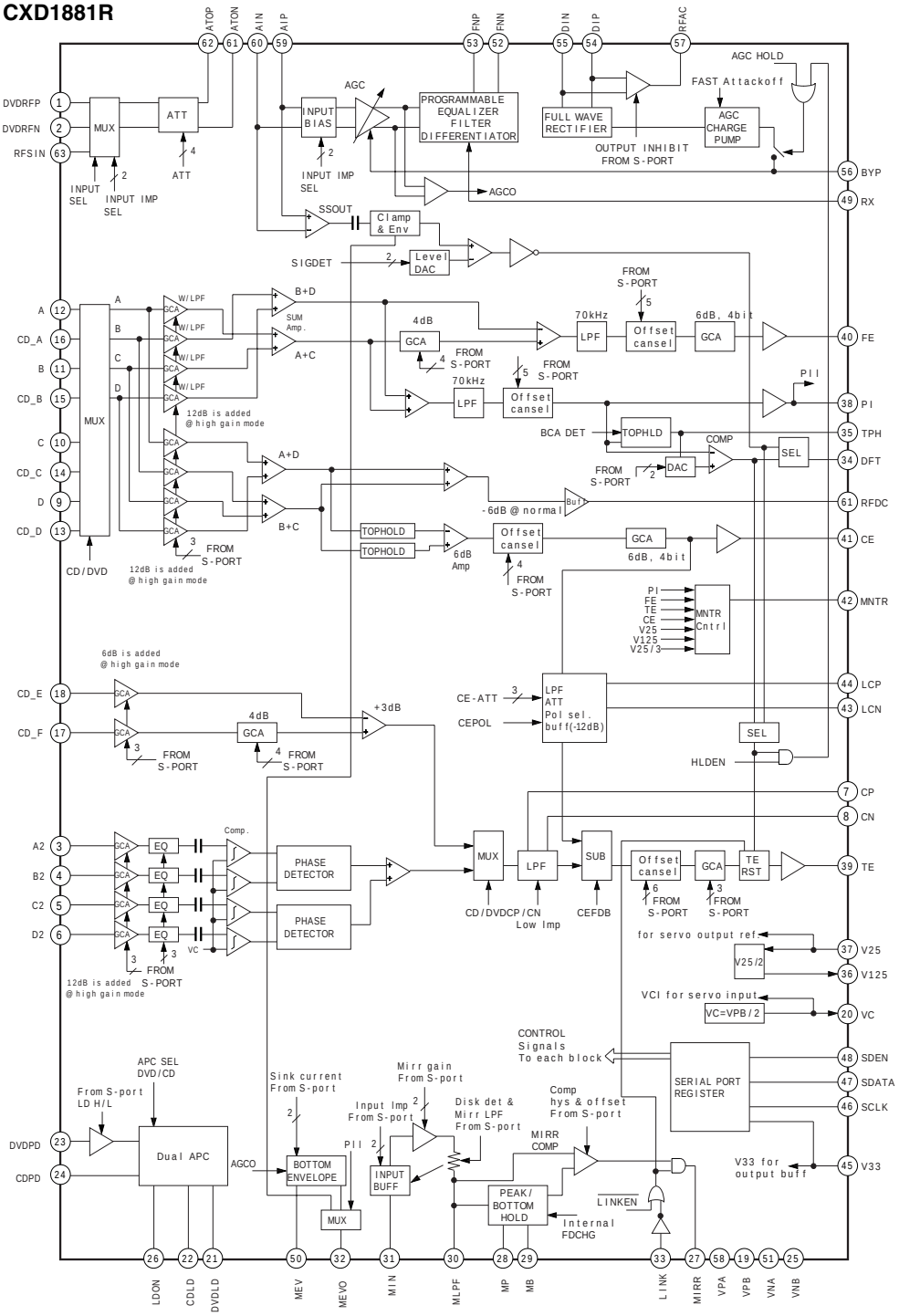
Serial Port Pins

Name	Type	Description
SDEN	I	SERIAL DATA ENABLE: Serial enable CMOS input. A high level input enables the serial port. (not to be left open)
SDATA	I/O	SERIAL DATA: Serial data bidirectional CMOS pin(V33 or VPA). NRZ programming data for the internal registers is applied to this input. (not to be left open)
SCLK	I	SERIAL CLOCK: Serial clock CMOS input. The clock applied to this pin is synchronized with the data applied to SDATA. (not to be left open)

Analog Pins

Name	Type	Description
BYP	—	The RF AGC integration capacitor CBYP, is connected between BYP and VPA.
CP	—	DIFFERENTIAL PHASE TRACKING LPF PIN: The external capacitance is connected between CN.
CN	—	DIFFERENTIAL PHASE TRACKING LPF PIN: The external capacitance is connected between CP.
LCP	—	LENS SHIFT OFFSET CANCEL LPF PIN: The external capacitance is connected between LCN.
LCN	—	LENS SHIFT OFFSET CANCEL LPF PIN: The external capacitance is connected between LCP.
MP	—	MIRR TOP HOLD PIN: The external capacitance is connected to VPB.
MB	—	MIRR BOTTOM HOLD PIN: The external capacitance is connected to VPB.
MEV	—	RFDC BOTTOM ENVELOPE PIN: The external capacitance is connected to VPA.
MLPF	—	MIRROR LPF PIN: An external capacitance is connected to VPB.
TPH	—	PI TOP HOLD PIN: An external capacitance is connected to VPB.
VC	—	REFERENCE VOLTAGE OUTPUT: This pin provides the DC bias reference voltage (VPB/2). Output impedance is less than 50 Ω.
V125	—	REFERENCE VOLTAGE OUTPUT: DC bias voltage output and it is also used for servo output reference. (V25/2)
RX	—	REFERENCE RESISTOR INPUT: An external 12.0 k&, 1 % resistor is connected from this pin to ground to establish a precise PTAT (proportional to absolute temperature) reference current for the filter.

Q101 : CXD1881R



Q123 : CXD2752R

Pin	Symbol	I/O	Description No.
1	VSC	—	Core GND.
2	XMSLAT	I	Latch input for microcomputer serial communication. The address and data are atched at the fall of this pin.
3	MSCK	I	Shift clock input for microcomputer serial communication. The serial input data is loaded and shifted at the rise of the clock input to this pin. During readout, the readout data changes at the fall of the clock input to this pin.
4	MSDATI	I	Data input for microcomputer serial communication. The data and address are serially input from the microcomputer.
5	VDC	—	Core power supply. Supply +2.5V.
6	MSDATO	O	Data output for microcomputer serial communication. Hi-Z other than during output.
7	MSREADY	O	Output ready flag for microcomputer serial communication. Low output when ready. Open drain.
8	XMSDOE	O	Output enable for microcomputer serial communication. When an external tri-state buffer is used, the buffer is activated by this pin. Low during MSDATO output.
9	XRST	I	Reset. The entire IC is reset when low. However, the clock output from the EXCKO1, EXCKO2 and LRCK output pins does not stop even when reset.
10	SMUTE	I	Soft mute. Audio output is soft muted when high; mute off when low.
11	MCKI	I	Master clock input. Input a 768Fs (33.8688MHz) clock.
12	VSIO	—	I/O GND.
13	EXCKO1	O	External output clock 1. 768Fs/512Fs/256Fs/128Fs is output according to the setting.
14	EXCKO2	O	External output clock 2. 768Fs/512Fs/256Fs/128Fs is output according to the setting.
15	LRCK	O	1Fs (44.1kHz) clock output.
16	FRAME	O	Frame signal output.
17	VDIO	—	I/O power supply. Supply +3.3V.
18	MNT0	O	Monitor output. Outputs a part of internal operation according to the microcomputer setting.
19	MNT1	O	Monitor output. Outputs a part of internal operation according to the microcomputer setting.
20	MNT2	O	Monitor output. Outputs a part of internal operation according to the microcomputer setting.
21	MNT3	O	Monitor output. Outputs a part of internal operation according to the microcomputer setting.
22	TESTO	O	Test output. Leave open.
23	TESTO	O	Test output. Leave open.
24	TESTO	O	Test output. Leave open.
25	TESTO	O	Test output. Leave open.
26	TCK	I	Test clock input. Fix to low.
27	TDI	Ipu	Test input (pulled up). Leave open.
28	VSC	—	Core GND.
29	TDO	O	Test output. Leave open.
30	TMS	Ipu	Test input (pulled up). Leave open.
31	TRST	Ipu	Test reset (pulled up). Input the power-on reset signal or fix to low.
32	TEST1	I	Test input. Fix to low.
33	TEST2	I	Test input. Fix to low.
34	TEST3	I	Test input. Fix to low.
35	VDC	—	Core power supply. Supply +2.5V.
36	TESTO	O	Test output. Leave open.
37	XBIT	O	DST related monitor. No connected. For detailed information, see the DST_X_Bit item in Part 3 of the SACD Format Book.
38	SUPDT0	O	Supplementary data output. (LSB)
39	SUPDT1	O	Supplementary data output.
40	SUPDT2	O	Supplementary data output.
41	SUPDT3	O	Supplementary data output.
42	VSIO	—	I/O GND.
43	SUPDT4	O	Supplementary data output.
44	SUPDT5	O	Supplementary data output.
45	VDIO	—	I/O power supply. Supply +3.3V.
46	SUPDT6	O	Supplementary data output.
47	SUPDT7	O	Supplementary data output. (MSB)
48	XSUPAK	O	Supplementary data acknowledge output.
49	VSC	—	Core GND.
50	TESTO	O	Test output. Leave open.
51	TESTI	I	Test input. Fix to low.
52	TESTI	I	Test input. Fix to low.
53	TESTO	O	Test output. Leave open.
54	VDC	—	Core power supply. Supply +2.5V.
55	TESTO	O	Test output. Leave open.
56	TESTO	O	Test output. Leave open.
57	BCKASL	I	Bit clock input/output selection for DSD data output. Low = input (slave), high = output (master).
58	VSDSD	—	DSD data output GND.
59	BCKAI	I	Bit clock input for DSD data output. Input the bit clock to this pin when BCKASL = low.
60	BCKAO	O	Bit clock output for DSD data output. The bit clock is output from this pin when BCKASL = high.

61	PHREFI	I	Phase reference signal input for DSD output phase modulation.
62	PHREFO	O	Phase reference signal output for DSD output phase modulation.
63	ZDFL	O	Lch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
64	DSAL	O	Lch DSD data output.
65	ZDFR	O	Rch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
66	DSAR	O	Rch DSD data output.
67	VDDSD	—	Power supply for DSD data output. Supply +3.3V separated from other digital power supplies.
68	ZDFC	O	Cch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
69	DSAC	O	Cch DSD data output.
70	ZDFLFE	O	LFEch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
71	DSALFE	O	LFEch DSD data output.
72	VSDSD	—	GND for DSD data output.
73	ZDFLS	O	LSch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
74	DSALS	O	LSch DSD data output.
75	ZDFRS	O	RSch zero data detection flag (when set by the microcomputer). Goes high when silent data continues for 300ms.
76	DSARS	O	RSch DSD data output.
77	VDDSD	—	Power supply for DSD data output. Supply +3.3V separated from other digital power supplies.
78	TESTO	O	Test output. Leave open.
79	TESTO	O	Test output. Leave open.
80	VSC	—	Core GND.
81	TESTO	O	Test output. Leave open.
82	TESTO	O	Test output. Leave open.
83	VDC	—	Core power supply. Supply +2.5V.
84	TESTO	O	Test output. Leave open.
85	TESTO	O	Test output. Leave open.
86	VSIO	—	I/O GND.
87	TESTO	O	Test output. Leave open.
88	TESTI	I	Test input. Fix to low.
89	TESTI	I	Test input. Fix to low.
90	VDIO	—	I/O power supply. Supply +3.3V.
91	TESTO	O	Test output. Leave open.
92	TESTO	O	Test output. Leave open.
93	TESTO	O	Test output. Leave open.
94	VSC	—	Core GND.
95	TESTI	I	Test input. Fix to high.
96	TESTI	I	Test input. Fix to low.
97	TESTI	Ipu	Test input. Fix to high.
98	TESTO	O	Test output. Leave open.
99	VDC	—	Core power supply. Supply +2.5V.
100	TESTI	I	Test input. Fix to low.
101	TESTI	I	Test input. Fix to low.
102	TESTI	I	Test input. Fix to low.
103	TESTI	I	Test input. Fix to low.
104	TESTI	I	Test input. Fix to low.
105	TESTI	I	Test input. Fix to low.
106	VSIO	—	I/O GND.
107	TESTI	I	Test input. Fix to low.
108	TESTI	I	Test input. Fix to low.
109	TESTI	I	Test input. Fix to low.
110	VDIO	—	/O power supply. Supply +3.3V.
111	WAD0	I	External A/D data input for PSP physical disc mark detection. (LSB) This is used only when not using the internal A/D converter and connecting an external A/D converter.
112	WAD1	I	External A/D data input for PSP physical disc mark detection.
113	WAD2	I	External A/D data input for PSP physical disc mark detection.
114	WAD3	I	External A/D data input for PSP physical disc mark detection.
115	VSIO	—	I/O GND.
116	VSC	—	Core GND.
117	WAD4	I	External A/D data input for PSP physical disc mark detection.
118	WAD5	I	External A/D data input for PSP physical disc mark detection.
119	WAD6	I	External A/D data input for PSP physical disc mark detection.
120	WAD7	I	External A/D data input for PSP physical disc mark detection. (MSB)
121	VDC	—	Core power supply. Supply +2.5V.
122	TESTI	I	Test input. Fix to low.
123	WCK	I	Operating clock for PSP physical disc mark detection. Input the PLL clock corresponding to 1T of RF.
124	WAVDD	—	A/D power supply for PSP physical disc mark detection. Input +2.5V separated from the digital block.
125	WAVDD	—	A/D power supply for PSP physical disc mark detection. Input +2.5V separatedfrom the digital block.

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126	WARFI	Ai	Analog RF signal input for PSP physical disc mark detection. The full scale is 0.0 to 2.5V. (typ.)
127	WAVRB	Ai	A/D bottom reference for PSP physical disc mark detection. The voltage input to this pin is set to bottom level of the A/D converter.
128	WAVSS	—	A/D GND for PSP physical disc mark detection.
129	WAVSS	—	A/D GND for PSP physical disc mark detection.
130	VSIO	—	I/O GND.
131	DQ7	I/O	SDRAM data I/O. (MSB)
132	DQ6	I/O	SDRAM data I/O.
133	DQ5	I/O	SDRAM data I/O.
134	DQ4	I/O	SDRAM data I/O.
135	VDIO	—	I/O power supply. Supply +3.3V.
136	DQ3	I/O	SDRAM data I/O.
137	DQ2	I/O	SDRAM data I/O.
138	DQ1	I/O	SDRAM data I/O.
139	DQ0	I/O	SDRAM data I/O. (LSB)
140	VSIO	—	I/O GND.
141	DCLK	O	SDRAM clock output.
142	DCKE	O	SDRAM clock enable output.
143	XWE	O	SDRAM write enable output. Connect to the XWE pin of the SDRAM.
144	XCAS	O	SDRAM column address strobe output. Connect to the CAS pin of the SDRAM.
145	XRAS	O	SDRAM row address strobe output. Connect to the RAS pin of the SDRAM.
146	VDIO	—	I/O power supply. Supply +3.3V.
147	TESTO	O	Test output. Leave open.
148	A11	O	SDRAM address output. (MSB)
149	A10	O	SDRAM address output.
150	VSC	—	Core GND.
151	A9	O	SDRAM address output.
152	A8	O	SDRAM address output.
153	VDC	—	Core power supply. Supply +2.5V.
154	A7	O	SDRAM address output.
155	A6	O	SDRAM address output.
156	A5	O	SDRAM address output.
157	A4	O	SDRAM address output.
158	VSIO	—	I/O GND.
159	A3	O	SDRAM address output.
160	A2	O	SDRAM address output.
161	A1	O	SDRAM address output.
162	A0	O	SDRAM address output. (LSB)
163	VDIO	—	I/O power supply. Supply +3.3V.
164	XSRQ	O	Output for data request to front-end processor.
165	XSHD	I	Input for header flag output from front-end processor.
166	SDCK	I	Input for data transfer clock output from front-end processor.
167	XSAK	I	Input for data valid flag output from front-end processor.
168	SDEF	I	Input for error flag output from front-end processor.
169	SD0	I	Input for stream data from front-end processor. (LSB)
170	SD1	I	Input for stream data from front-end processor.
171	SD2	I	Input for stream data from front-end processor.
172	SD3	I	Input for stream data from front-end processor.
173	SD4	I	Input for stream data from front-end processor.
174	SD5	I	Input for stream data from front-end processor.
175	SD6	I	Input for stream data from front-end processor.
176	SD7	I	Input for stream data from front-end processor. (MSB)

Ipu: pulled-up input, Ipd: pulled-down input, Ai: analog input

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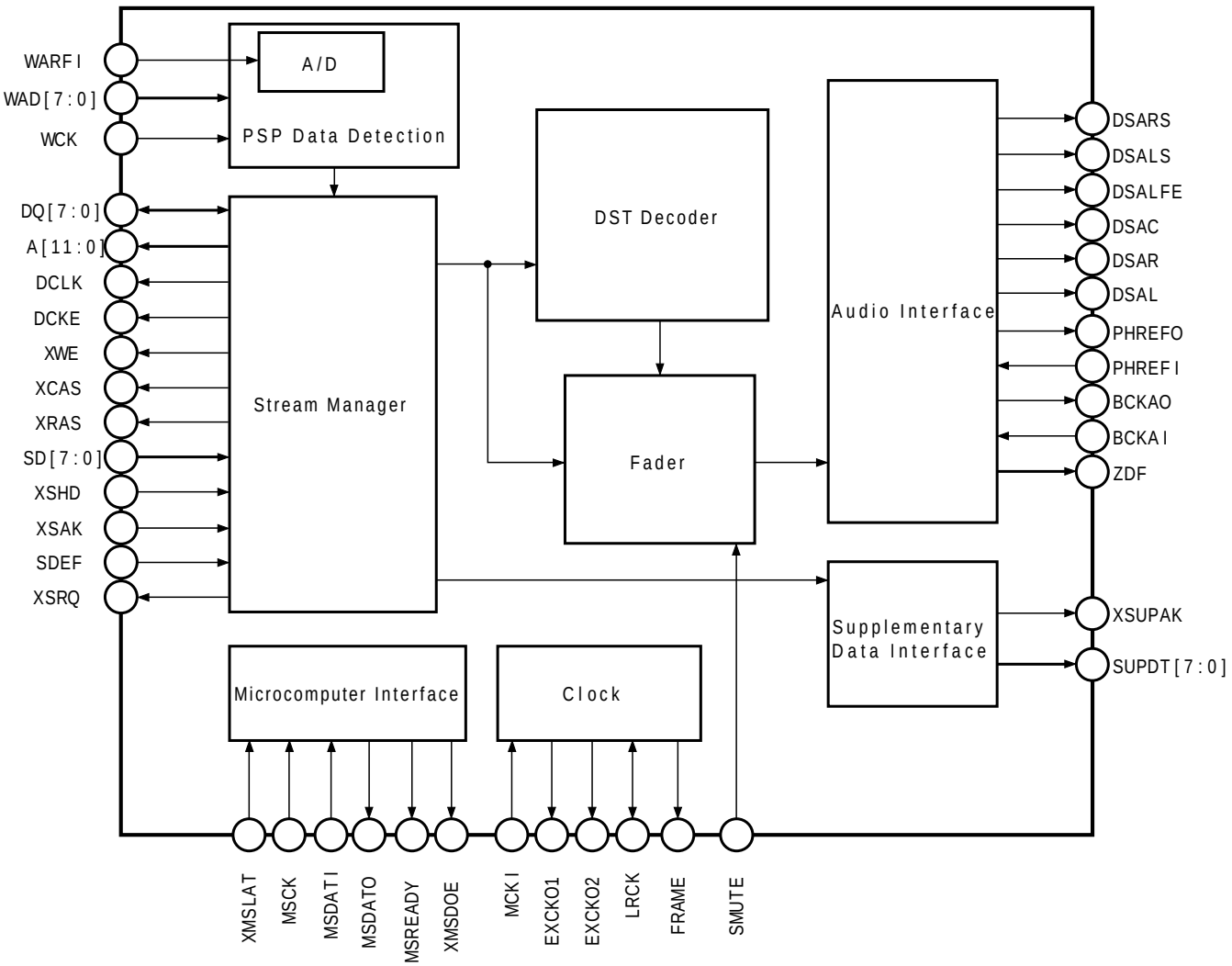

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Pin Description

The pin descriptions by function are given below.

1. Read Channel Block (22 pins)

1-1. PLL (8 pins)

(1) PDHVCC (VC input for PD Hi-Z output)
Midpoint potential input for RFPLL. If the HPDVC bit (bit 6) of the RFPLL1 register (E0h) is set to "1", the voltage input to this pin is output from the PDO pin when the PDO pin output is other than VCC or GND. This pin sharpens the PDO pin output waveform in order to reduce phase deviation.

(2) PDO (phase detector output: output)
Phase comparator charge pump output.

(3) FDO (frequency detector output: output)
Frequency comparator charge pump output.

(4) LPF1 (PLL LPF1: input)
Inverted input of the operational amplifier of the PLL loop filter.

(5) LPF2 (PLL LPF2: input)
When the LPFTGN bit (bit 0) of the LOOPFCTL register (EAh) is set to "1", this pin is connected to the inverted input of the operational amplifier of the PLL loop filter. It is used to switch the PLL loop gain.

(6) LPF5 (PLL LPF5: output)
Output of the operational amplifier of the PLL loop filter.

(7) VCOIN (VCO input: input)
VCO input. When using the built-in operational amplifier, the output of the second operational amplifier of the loop filter is connected to this pin.

(8) VCOR1 (VCO resistor: input)
Connects the VCO oscillation range setting resistor. The setting resistor is connected between his pin and GND. When R2 is increased, the minimum oscillation frequency is reduced.

1-2: RF binary setting (6 pins)

(1) RFDCC (RF DC cut control: input)
Input for adjusting the RF signal DC cut HPF. A resistor is connected between this pin and the midpoint potential in order to raise the HPF cut-off frequency in areas other than the linking section.

(2) ASF[2:1] (asymmetry compensation filter: output)
Connects the filter for switching the asymmetry compensation time constant in the linking section.

(3) DASYO (data output of asymmetry compensation circuitry: output)
RF binary signal output.

(4) DASYI (data input of asymmetry compensation circuitry: input)
Input for the analog signal obtained by integrating the RF binary signal.

(5) RFIN (RF input: input)
RF signal input.

1-3. CLV (6 pins)

(1) MDSOUT (MDS output: output)
Built-in CLV circuit frequency error output.

(2) MDPOUT (MDP output: output)
Built-in CLV circuit phase error output.

(3) MDPIN[2:1] (MDP input: input)
MDP inputs. The input from these two pins is switched by the MDPSL bit (bit 0) of the SPDLCTL register (E8h). MDSOUT and MDPOUT are synthesized as analog values and input to one of these pins. A spindle control signal generated by an external spindle control circuit is input to the other pin.

(4) SPO (spindle control output: output)
Spindle control output. It attenuates and outputs the signal input from MDPIN.

(5) CLVS (CLVS control output: output)
Control output for switching the spindle control filter constant in CLVS mode.

1-4. Other pins (2 pins)

(1) LINK/DEFECT (LINK monitor/DEFECT: input/output)
LINK signal monitor output or DEFECT input signal. The signal is switched by the LNDFT bit (bit 7) of the MNTRPIN register ($Efh). For LINK output, this pin is set high in the linking section processing mode for DVD + RW discs. For DEFECT input, an external high signal is input during the DEFECT period.

(2) APEO (absolute phase error: output)
Absolute phase error signal. It is integrated and used to evaluate the quality of the read channel.

2. CD-ROM Interface (12 pins)

Interface between this IC and a Sony CD signal processing IC such as the CXD3011R.

(1) MDAT (medium data: input)
Serial data stream from the CD signal processing IC (hereafter referred to as "CD DSP").

(2) BCLK (bit clock: input)
Bit clock input signal from the CD DSP. It strobes the MDAT signal.

(3) LRCK (LR clock: input)
LR clock input signal from the CD DSP. It indicates MDAT signal left channel and right channel.

(4) C2PO (C2 pointer: input)
C2 pointer input signal from the CD DSP. It indicates that the MDAT signal contains an error.

(5) WFCK (write frame clock: input)
Write frame clock input signal from the CD DSP.

(6) SCOR (subcode sync OR: input)
Subcode sync input signal from the CD DSP.

(7) SBIN (subcode serial input: input)
Subcode serial input signal from the CD DSP.

(8) EXCK (external clock: output)
Clock output for reading the SBIN signal which is sent to the CD DSP.

(9) GRSOR (guard SCOR: input)
Guarded SCOR input signal from the CD DSP.

(10) XRCI (RAM overflow input: input)
CD DSP RAM overflow input signal.

3. Buffer Memory Interface (32 pins)

This interface can be connected with a 4M-bit or 16M-bit EDO DRAM. Note that the bus width is 16 bits.

(1) XMWR (DRAM write enable: output)
DRAM write enable negative logic output signal.

(2) XCAS (column address strobe: output)
Column address strobe negative logic output signal.

(3) XRAS (row address strobe: output)
Row address strobe negative logic output signal.

(4) XMOE (memory output enable: output)
DRAM output enable negative logic output signal.

(5) MA[11:0] (DRAM address: output)
DRAM address outputs. When connected to a 4M-bit DRAM, the MA[11:9] pins can be used as monitor pins.

(6) MDB[F:0] (DRAM data bus: input/output)
DRAM data bus.

4. Sub CPU Interface (22 pins)

(1) XWR (sub CPU write: input)
Strobe negative logic input signal for writing internal registers.

(2) XRD (sub CPU read: input)
Strobe negative logic input signal for reading internal register status.

(3) D[7:0] (sub CPU data bus: input/output)
8-bit data bus.

(4) A[7:0] (sub CPU address: input)
Address input signals for selecting internal registers from the sub CPU.

(5) XINT0, 1 (sub CPU interrupt: output)
Interrupt request negative logic output signals for the sub CPU. Interrupt requests from the decoder block and authentication block are output from the XINT0 pin. Interrupt requests from the read channel block are output from the XINT1 pin. These are open drain outputs.

(6) XCS (chip select: input)
Chip select negative logic signal from the sub CPU.

(7) XWAT (wait: output)
Negative logic output wait signal used by the sub CPU to access the buffer memory.

5. Host Interface (31 pins)

Pin symbols are listed in the order of ATAPI mode, DMA mode and AV mode. Pull up means that the pin should be pulled up by a resistor, “0” means low level output, and nc means No Connect.

(1) HCS0 (HOST chip select: input)/nc/nc
This pin is pulled up by a resistor.
ATAPI: Chip select negative logic input signal from the host. This is connected with the CS1FX pin of the ATAPI interface.
DMA/AV: This pin is not used.

(2) HCS1 (HOST chip select: input)/nc/nc
This pin is pulled up by a resistor.
ATAPI: Chip select negative logic input signal from the host. This is connected with the CS3FX pin of the ATAPI interface.
DMA/AV: This pin is not used.

(3) HA[2:0] (HOST address: input)/pull up/pull up
ATAPI: Address input signal for selecting internal registers from the host.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(4) XHRD (HOST read: input)/XHRD (HOST read: output)/ XSHDR0 (sector header 0: output)
ATAPI: Strobe negative logic input signal for reading data from the host.
DMA: Strobe negative logic input signal for reading data to the host.
AV: Negative logic output signal indicating the lead byte of the sector.

(5) XHWR (HOST write: input)/XHWR (HOST write: output)/DCK (data clock: output)
ATAPI: Strobe negative logic input signal for writing data from the host.
DMA: Strobe negative logic output signal for writing data to the host.
AV: Clock output for data transfer.

(6) XHAC (HOST DMA acknowledge: input)/HDRQ (HOST DMA request: input)/REQUEST (request:input)
This pin is pulled up by a resistor.
ATAPI: DMA acknowledge negative logic input signal from the host.
DMA: DMA request input signal from the host.
AV: Data transfer request input signal.

(7) DASP (drive active/slave present: input/output)/pull up/pull up
ATAPI: Negative logic signal indicating that a slave drive is present or a drive is active; open drain signal.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(8) HDB[F:0] (HOST data bus: input/output)/HDB[F:0] (HOST data bus: input/output)/7 “0”, XVFLAG, DATA[7:0] (“0”, video error flag, data: output)
ATAPI/DMA: 16-bit host data bus.
AV: Low level is output from the upper 7 bits. The 8th bit from the upper side is an error flag output signal corresponding to the lower 8 bits. The lower 8 bits are video data output signals.

(9) HDRQ (HOST DMA request: output)/XHAC (HOST DMA acknowledge: output)/XACK (acknowledge:output)
ATAPI: DMA data request positive logic output signal to the host; tri-state signal.
DMA: DMA acknowledge negative logic output signal to the host.
AV: Data transfer acknowledge negative logic output signal.

(10) HINT (HOST interrupt: output)/pull up/pull up
ATAPI: Interrupt request positive logic output signal to the host; tri-state signal.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(11) XS16 (16-bit data transfer: output)/pull up/pull up
ATAPI: Negative logic signal indicating that a 16-bit data port has been selected; open drain signal. This is connected with the IOCS16 pin of the ATAPI interface.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(12) REDY (I/O channel ready: output)/pull up/pull up
ATAPI: Positive logic signal which is negated when a drive is not ready to respond to a data transfer request; open drain signal. This is connected with the IORDY pin of the ATAPI interface.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(13) XPDI (passed diagnostics: input/output)/pull up/pull up
ATAPI: Negative logic signal indicating that diagnostics of the slave drive have been completed; open drain signal. This is connected with the PDIAG pin of the ATAPI interface.
DMA/AV: This pin is not used, and should be pulled up by a resistor.

(14) XHRS (HOST reset: input)/nc/nc
ATAPI: Reset negative logic signal from the host; pulled up by a resistor.
DMA/AV: This pin is not used

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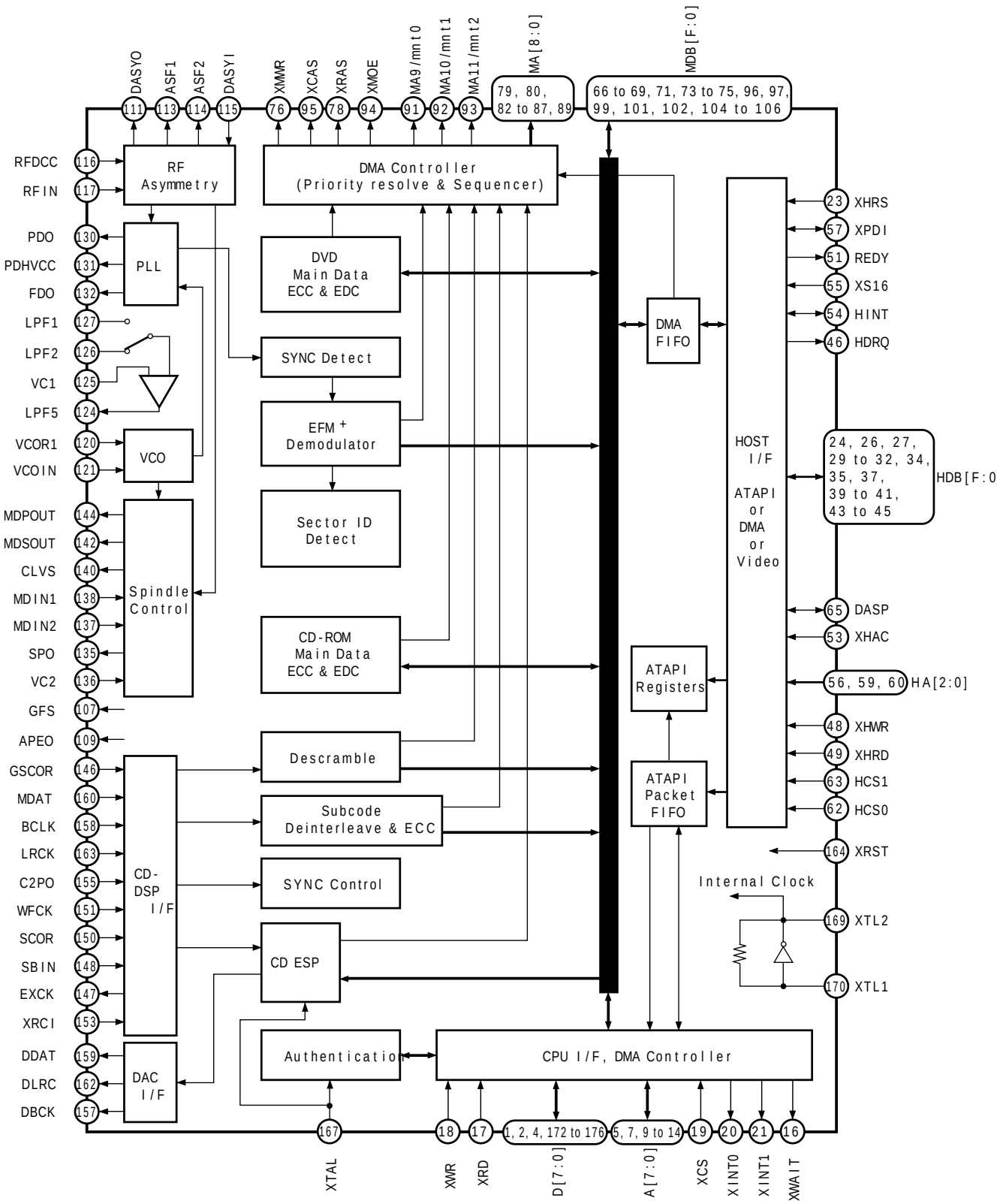


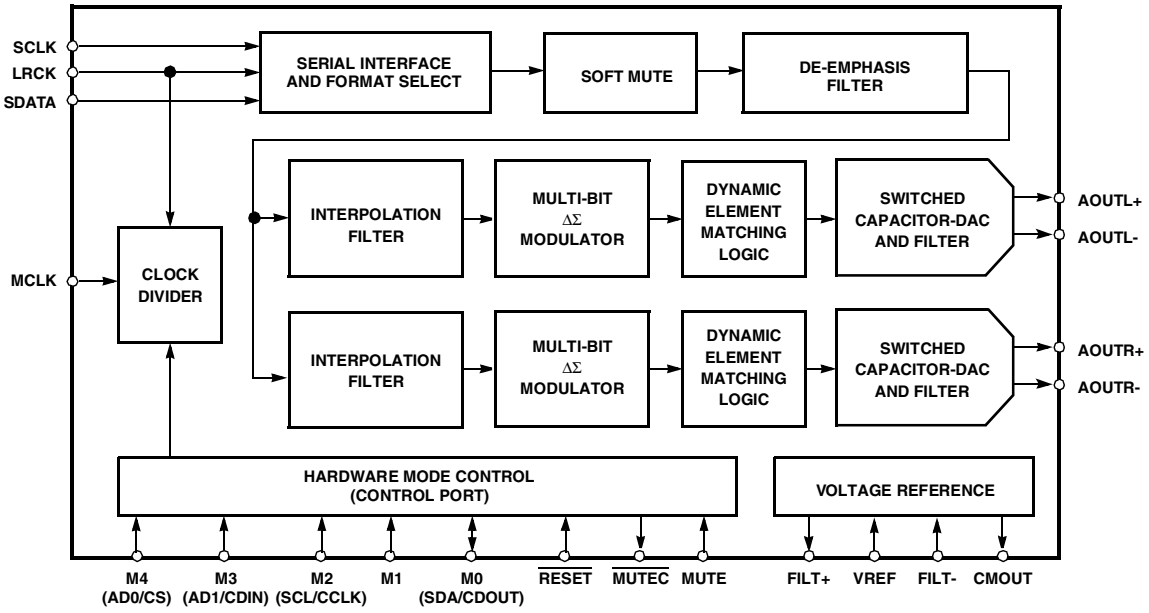
Q125 : GXPQ7100(MASK)

Pin No.	Pin Name	I/O	Description
1	FTMUT	O	Actuator driver mute signal for foc/track
2	SLMUT	O	Actuator driver mute signal for spin/sledg
3	AMUT	O	Muting on/off "L" : muting on for CXD3068Q
4	SMUT	O	Muting on/off signal output to the DSD decoder "H" : muting on
5	XRST	O	System reset signal output (L= reset)
6	CD/XDVD	O	CD/DVD(SACD) mode selection signal output (L=CD, H=SACD)
7	LOCK	I	GFS is sampled by 460 Hz "H" input when GFS is. "H"
8	MBHLD	-	NC
9	AMPSDT	I/O	Serial data transfer DATA signal input,output
10	AMPSCK	O	Serial data transfer clock signal output
11	AMPSEN	O	Serial data transfer enable signal (H=enable)
12	XDECSEL	O	OPU block on/off for modulation circuit (L=on)
13	VSS	O	Ground terminal (digital system)
14	D0	I/O	Two-way data bus
15	D1	I/O	Two-way data bus
16	D2	I/O	Two-way data bus
17	D3	I/O	Two-way data bus
18	D4	I/O	Two-way data bus
19	D5	I/O	Two-way data bus
20	D6	I/O	Two-way data bus
21	D7	I/O	Two-way data bus
22	XDECINT0	I	Interrupt signal input from CXD1881R
23	XDECINT1	I	Interrupt signal input from CXD1881R
24	TZC	I	Track signal, OPU in case by traversal the disc track line
25	PE3	-	NC
26	PE3	-	NC
27	SEEK	O	Display data ready signal output to the feature MPU ("H" : read)
28	REQST	O	Reqest signal CXD1882R
29	NC	-	Not used (open)
30	DECMNT1	I	RF signal monitor input from CXD1882R
31	FOK	I	Focus on signal
32	GFSDEC	I	Guard frame sync signal input
33	DRVRXD	I	Input signal data from the feature MPU
34	DRVTXD	O	Output signal data for the featur MPU
35	DRVCLK	I	Input signal clock from the featur MPU
36	XDRVRDY	O	Output data signal readey for the featur MPU
37	DRVIRQ	O	Iutput data signal readey from the featur MPU
38	XRESET	I	Power on reset signal input (L=reset)
39	VSS		Ground terminal (digital system)
40	XTAL	I	System clock input terminal (20 MHz)
41	EXTAL	O	System clock output terminal (20 MHz)
42	VDD		Power supply terminal (+3.3V) (digital system)
43	DSPXLAT	O	Serial data latch pulse signal output to the CXD3068Q
44	XMSLAT	O	Serial data latch pulse signal output to the CXD2752R
45	MSCK	O	Serial data transfer clock signal output to CXD2752R
46	MSDTO	O	Serial data output to the DSD CXD2752R
47	MSDTI	I	Serial data input from the CXD2752R
48	MSREADY	I	Ready signal input from the CXD2752R "L" : ready
49	DSPDTO	O	Serial data output to the CXD3068Q
50	DSPSCK	O	Serial data clock input from the CXD3068Q
51	SENS	I	Internal status (SENSE) signal input from CXD3068Q
52	SQSO	I	Subcode Q data input
53	SNSCK	O	Serial status data clock output to the CXD3068Q
54	SQCK	O	Subcode Q data reading clock signal output
55	VSS		Ground terminal (digital system)
56	JITIN	I	Jitter signal input terminal
57	AMPMNT	I	Monitor signal from the CXD1881R
58	-ATT	I	-12dB atteneation request signal input "L" : attenation on
59	P17	-	NC
60	PJ0	-	NC
61	SCSY	O	GRSCOR data sync request signal for CXD3068Q
62	GFSDSP	I	Frequency generator signal input
63	C2PO	I	C2 pointer signal input from the CXD3068Q
64	MIRR	I	Mirror signal input from CXD3068Q
65	DECMNT2	I	Monitor signal from the CXD1882R

Q125 : GXPQ7100(MASK)

66	FJUP_D	O	Focus jump DOWN signal output
67	FJUP_U	O	Focus jump UP signal output
68	AVSS	0	Ground terminal (for A/D converter)
69	AVREF	I	Reference voltage input terminal (for A/D converter)
70	AVDD	I	power supply terminal (+3.3V) (for A/D converter)
71	XFCMP_L	I	Layer swicthing monitor signal at the down from refrenc level
72	XFCMP_H	I	Layer swicthing monitor signal at the up from refrenc level
73	XLIM	I	Sledge position dedector sw (L=inner)
74	XTCLS	I	Tray loading inner switch input from the toray loader (L=inner)
75	XTOPN	I	Tray loading inner switch input from the toray loader (L=open)
76	EDCERR	-	Not used (open)
77	BUEEMP	I	MPR2="L", input case of install data for the MPU(FLASH ROM version)
78	EPDA	-	Not used (open)
79	EPCL	-	Not used (open)
80	PCRXD	I	Install data input for MPU chip (internal FLASH ROM TYPE)
81	PCTXD	O	Install data output for MPU chip (internal FLASH ROM TYPE)
82	FSJP	O	Start of Layer chenge signal
83	SYNCERR	I	MPR3="H", input case of install data for the MPU (FLASH ROM version)
84	XDECWR	O	write strobe signal output for CXD1882R
85	XDECRD	O	Read strobe signal output for CXD1882R
86	MPR1	I	MPR1="H", input case of install data for the MPU (FLASH ROM version)
87	VDD		Power supply terminal (+3.3V) (digital system)
88	VSS		Ground termina1(digital system)
89	A0	O	Address signal output
90	A1	O	Address signal output
91	A2	O	Address signal output
92	A3	O	Address signal output
93	A4	O	Address signal output
94	A5	O	Address signal output
95	A6	O	Address signal output
96	A7	O	Address signal output
97	XMODEON	O	CD/DVD(SACD) RF-bypass/DFT selection signal output (H=CD, L=SACD)
98	LDON	O	Laser diode on/off control signal output "L" : laser diode off, "H" : laser diode on
99	EJECT-	O	Tray loader pull-in signal
100	EJECT+	O	Tray loader push-out signal

QD41/QD61/QD71 : CS4397



Reset - RST

Pin 1, Input

Function:

The device enters a low power mode and all internal state machines registers are reset when low. When high, the device will be in a normal operation mode .

RST	DESCRIPTION
0	Enabled
1	Normal operation mode

Digital Ground - DGND

Pins 6 and 9, Inputs

Function:

Digital ground reference.

Digital Power - VD

Pins 7 and 8, Input

Function:

Digital power supply. Typically 5.0 to 3.0 VDC.

Master Clock - MCLK

Pin 10, Input

Function:

The master clock frequency must be either 256x, 384x, 512x or 768x the input sample rate in Single Speed Mode; either 128x, 192x 256x or 384x the input sample rate in Double Speed Mode; or 64x, 96x 128x or 192x the input sample rate in Quad Speed Mode. Tables 4-6 illustrate the standard audio sample rates and the required master clock frequencies.

Sample Rate (kHz)	MCLK (MHz)			
	256x	384x	512x	768x
32	8.1920	12.2880	16.3840	24.5760
44.1	11.2896	16.9344	22.5792	33.8688
48	12.2880	18.4320	24.5760	36.8640

Table 4. Single Speed (16 to 50 kHz sample rates) Common Clock Frequencies

Sample Rate (kHz)	MCLK (MHz)			
	128x	192x	256x	384x
64	8.1920	12.2880	16.3840	24.5760
88.2	11.2896	16.9344	22.5792	33.8688
96	12.2880	18.4320	24.5760	36.8640

Table 5. Double Speed (50 to 100 kHz sample rates) Common Clock Frequencies

Sample Rate (kHz)	MCLK (MHz)			
	64x	96x	128x	192x
176.4	11.2896	16.9344	22.5792	33.8688
192	12.2880	18.4320	24.5760	36.8640

Table 6. Quad Speed (100 to 200 kHz sample rates) Common Clock Frequencies

Serial Clock - SCLK

Pin 11, Input

Function:

Clocks individual bits of serial data into the SDATA pin. The required relationship between the Left/Right clock, serial clock and serial data is defined by either the Mode Control Byte in Control Port Mode or the M0 - M4 pins in Hardware Mode. The options are detailed in Figures 29-33

Left/Right Clock - LRCK

Pin 12, Input

Function:

The Left/Right clock determines which channel is currently being input on the serial audio data input, SDATA. The frequency of the Left/Right clock must be at the input sample rate. Audio samples in Left/Right sample pairs will be simultaneously output from the digital-to-analog converter whereas Right/Left pairs will exhibit a one sample period difference. The required relationship between the Left/Right clock, serial clock and serial data is defined by the Mode Control Byte and the options are detailed in Figures 29-33

Serial Audio Data - SDATA

Pin 13, Input

Function:

Serial audio data is input on this pin. The selection of the Digital Interface Format is determined by settings of the Mode select as detailed in Figures 29-33. The data is clocked into SDATA via the serial clock and the channel is determined by the Left/Right clock. The required relationship between the Left/Right clock, serial clock and serial data is defined by the Mode Control Byte and the options are detailed inin Figures 29-33

Soft Mute - MUTE

Pin 15, Input

Function:

The analog outputs will ramp to a muted state when enabled. The ramp requires 1152 left/right clock cycles in Single Speed, 2304 cycles in Double Speed and 4608 cycles in Quad Speed mode. The bias voltage on the outputs will be retained and MUTEC will go active at the completion of the ramp period.

The analog outputs will ramp to a normal state when this function transitions from the enabled to disabled state. The ramp requires 1152 left/right clock cycles in Single Speed, 2304 cycles in Double Speed and 4608 cycles in Quad Speed mode. The MUTEC will release immediately on setting MUTE = 1.

The converter analog outputs will mute when enabled. The bias voltage on the outputs will be retained and MUTEC will go active during the mute period.

Mute	DESCRIPTION
0	Enabled
1	Normal operation mode

Control Port / Hardware Mode Select - C/H

Pin 16, Input

Function:

Determines if the device will operate in either the Hardware Mode or Control Port Mode.

C/H	DESCRIPTION
0	Hardware Mode Enabled
1	Control Port Mode Enabled

Mute Control - MUTEC

Pin 17, Output

Function:

The Mute Control pin goes low during power-up initialization, reset, muting, master clock to left/right clock frequency ratio is incorrect or power-down. This pin is intended to be used as a control for an external mute circuit to prevent the clicks and pops that can occur in any single supply system. Use of Mute Control is not mandatory but recommended for designs requiring the absolute minimum in extraneous clicks and pops.

Analog Ground - AGND
Pins 18 and 21, Inputs
Function:
Analog ground reference.

Differential Analog Outpus - AOUTR- , AOUTR+ and AOUTL- , AOUTL+
Pins 19, 20, 23 and 24, Outputs
Function:
The full scale differential analog output level is specified in the Analog Characteristics specifications table.

Analog Power - VA
Pin 22, Input
Function:
Power for the analog and reference circuits. Typically 5VDC.

Common Mode Voltage - CMOUT
Pin 25, Output Function:
Filter connection for internal bias voltage, typically 50% of VREF. Capacitors must be connected from CMOUT to analog ground, as shown in Figure 6. CMOUT has a typical source impedence of 25 kΩ and any current drawn from this pin will alter device performance

Reference Ground - FILT-
Pin 26, Input Function:
Ground reference for the internal sampling circuits. Must be connected to analog ground.

Reference Filter - FILT+
Pin 27, Output Function:
Positive reference for internal sampling circuits. External capacitors are required from FILT+ to analog ground, as shown in Figure 6. FILT+ is not intended to supply external current.

Voltage Reference Input- VREF
Pin 28, Input Function:
Analog voltage reference. Typically 5VDC.

HARDWARE MODE
Mode Select - M0, M1, M2, M3, M4
Pins 2, 3, 4, 5 and 14, Inputs Function:
The Mode Select pins determine the operational mode of the device as detailed in Tables 9-14. The op-tions include; Selection of the Digital Interface Format which determines the required relationship between the Left/Right clock, serial clock and serial data as detailed in Figures 29-33 Selection of the standard 15 µs/50 µs digital de-emphasis filter response, Figure 28, which requires re-configuration of the digital filter to maintain the proper filter response for 32, 44.1 or 48 kHz sample rates. Selection of the appropriate clocking mode to match the input sample rates. Access to the Direct Stream Digital Mode Access to the 8x Interpolation Input Mode

CONTROL PORT MODE
Address Bit 0 / Chip Select - AD0 / CS
Pin 2, Input Function:
In I²C mode, AD0 is a chip address bit. CS is used to enable the control port interface in SPI mode. The device will enter the SPI mode at anytime a high to low transition is detected on this pin. Once the device has entered the SPI mode, it will remain until either the part is reset or undergoes a power-down cycle.

Address Bit 1 / Control Data Input - AD1/CDIN
Pin 3, Input Function:
In I²C mode, AD1 is a chip address bit. CDIN is the control data input line for the control port interface in SPI mode.

Serial Control Interface Clock - SCL/CCLK
Pin 4, Input Function:
In I²C mode, SCL clocks the serial control data into or from SDA/CDOUT.
In SPI mode, CCLK clocks the serial data into AD1/CDIN and out of SDA/CDOUT.

Serial Control Data I/O - SDA/CDOUT
Pin 5, Input/Output Function:
In I²C mode, SDA is a data input/output. CDOUT is the control data output for the control port interface in SPI mode.

M1 - Mode Select
Pin 14, Input Function:
This pin is not used in Control Port Mode and must be terminated to ground.

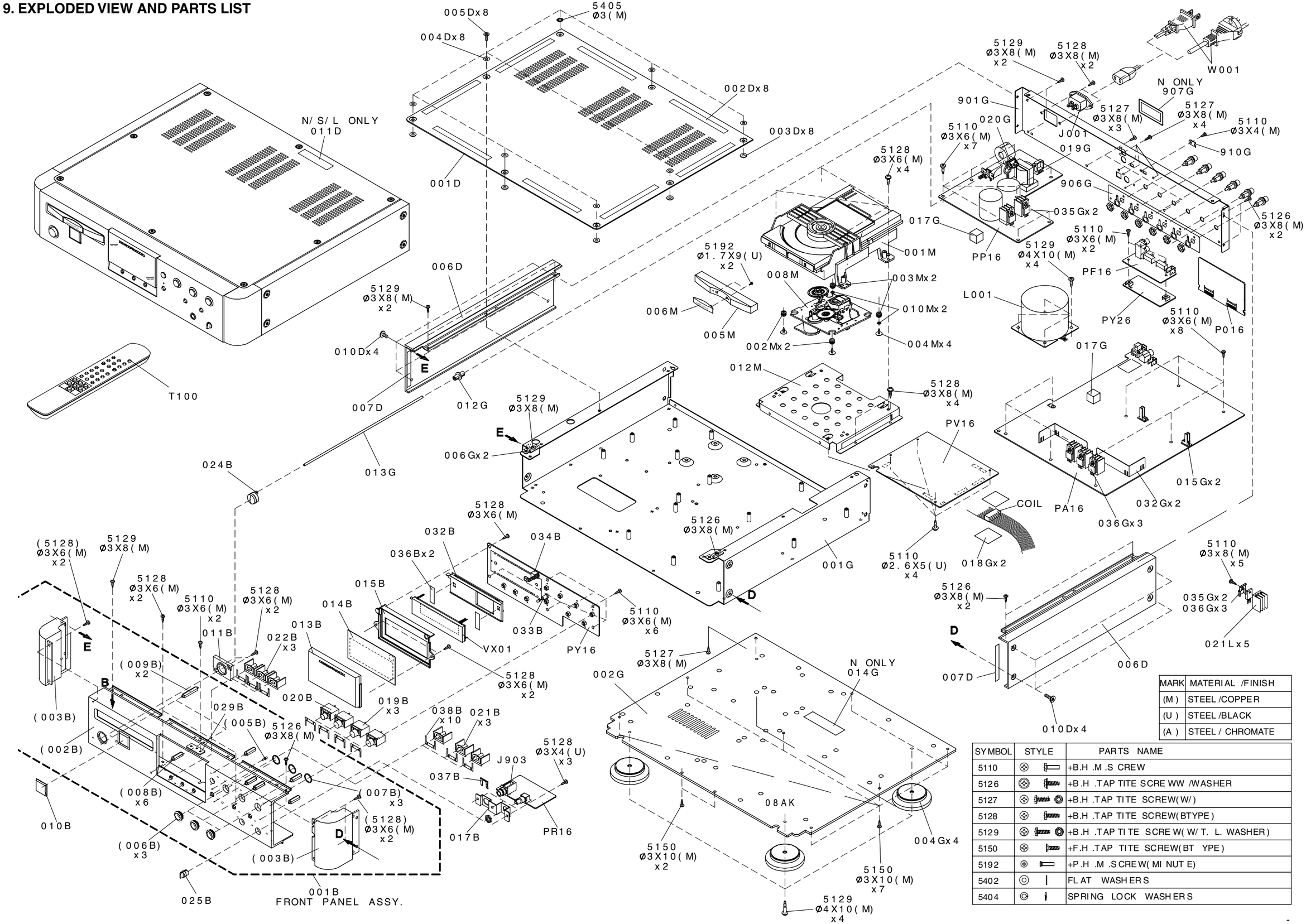
QF01 : MB90F553A

Pin	Port	Signal	I/O	Function Description	Active
1	P20/A16	M41	O	DAC select Front L/R	Active H
2	P21/A17	M42	O	DAC select Surround L/R	Active H
3	P22/A18	M43	O	DAC select center,LFE	Active H
4	P23/A19				
5	P24/A20	MUTE1	O	MUTE Front L/R	Active H
6	P25/A21	MUTE2	O	MUTE Surr.L/R, Center, LFE	Active H
7	P26/A22				
8	P27/A23				
9	P30/ALE				
10	P31/RD				
11	Vss	Vss		GND	
12	P32/WRL				
13	P33/WRH				
14	P34/WRQ				
15	P35/HAK				
16	P36/RDY	FCEN	O	Display driver select	Adrs= L : inst=H
17	P37/CLK	FRES	O	Display driver reset	Active L
18	P40/SCK	FCLK	O	Display driver clock	Active L
19	P41/SOT	FDAT	O	Display driver data	Pulse
20	P42/SIN				
21	P43/SCK1	DRVCLK	O	Front end clock	Active L
22	P44/SOT1	DRVRX	O	Front end data output	
23	Vcc	VDD		5V	
24	P45/SIN1	DRVTX	I	Front end data input	
25	P46/ADTG	CDRST	O	DAC reset	Active L
26	P47/SCK0	CDCLK	O	DAC clock	Active L
27	C	Cap.		0.1µF	
28	P50/SDA0/SOT0	CDIN	O	DAC data output	Pulse
29	P51/SCL0/SIN0	CDOUT	I	DAC data input	Pulse
30	P52/SDA1				
31	P53/SCL1				
32	P54/SDA2				
33	P55/SCL2				
34	Avcc	AVDD		5V	
35	AVRH	AVRef		5V	
36	AVRL	GND		GND	
37	Avss	AGND		GND	
38	P60/AN0	ADkey0	I	Key input	A/D
39	P61/AN1	ADkey1	I	Key input	A/D
40	P62/AN2	ADkey2	I	Key input	A/D
41	P63/AN3	ADkey3	I	Key input	A/D
42	Vss	Vss		GND	
43	P64/AN4	EEDAT	O	EEROM data	
44	P65/AN5	EECLK	O	EEROM clock	
45	P66/AN6				
46	P67/AN7				
47	P70/IRQ0				
48	P71/IRQ1				
49	MD0	MODE1	I	Mode select	Normal H
50	MD1	MODE2		Mode select	Normal H

Pin	Port	Signal	I/O	Function Description	Active
51	MD2	MODE3		Mode select	Norma L
52	HST	HWSTBY		Hardware standby	Normal H
53	P72/IRQ2	SEEK	I	Search signal	PLAY=L : SEEK or STOP=H
54	P73/IRQ3	STBSW	I	Standby on/off key input	Active H
55	P74/IRQ4	IR	I	Standby on/off remote input	Active H
56	P75/IRQ5	DRV RES	O	Front end reset	Active L
57	P76/IRQ6	DRV RDY	I	Front end ready	Active L
58	P77/IRQ7	DRV RQ	I	Front end request	active L
59	P80/TIN0				
60	P81/TIN1				
61	P82/TOT0				
62	P83/TOT1				
63	P84/IN0	RC-5		RC-5 input	Active L
64	P85/IN1				
65	P86/IN2				
66	P86/IN3				
67	P90/OUT0	CD	I/O	LED CD	Active L (Setup of in putfor SA17-S1)
68	P91/OUT1	2ch	I/O	LED 2ch	Active L (Setup of in putfor SA17-S1)
69	P92/PPG0	MultiPTMON	OO	LED Multi(SA8260)PTMON(SA-17S1)	Active L(LED Multi) : Active H(PTMON)
70	P93/PPG1	STBY	I/O	LED standby	Active L (LED output) : H=LED input (SA8260) : L=LED input (SA-17S1)
71	P94/PPG2	DISP	O	LED display off	Active L
72	P95/PPG3				
73	P96/PPG4				
74	P97/PPG5				
75	PA0/OUT2				
76	PA1/OUT3				
77	RST	Reset		Reset	Active L
78	PA2				
79	PA3				
80	PA4/CKOT				
81	Vss	GND		-	
82	X0	X'tal		8MHz	
83	X1	X'tal		8MHz	
84	Vcc	VDD		5V	
85	P00/AD00				
86	P01/AD01				
87	P02/AD02				
88	P03/AD03				
89	P04/AD04				
90	P05/AD05				
91	P06/AD06				
92	P07/AD07	MCKSEL	O	Audio Clock control	HIGH=128k : LOW= 64k
93	P10/AD08	MODE1	O	Mode select	SACD=H : CD=L
94	P11/AD09	STBY	O	Standby control	Active L
95	P12/AD10				
96	P13/AD11				
97	P14/AD12	Multi/2ch	I	Multi 2ch select	Multi=H : 2ch=L
98	P15/AD13	X128 SAMPLE	I	PU	HIGH=128k : LOW=64k
99	P16/AD14				
100	P17/AD15				

This is the same as the part of SA8260.

9. EXPLODED VIEW AND PARTS LIST



MARK	MATERIAL /FINISH
(M)	STEEL /COPPER
(U)	STEEL /BLACK
(A)	STEEL / CHROMATE

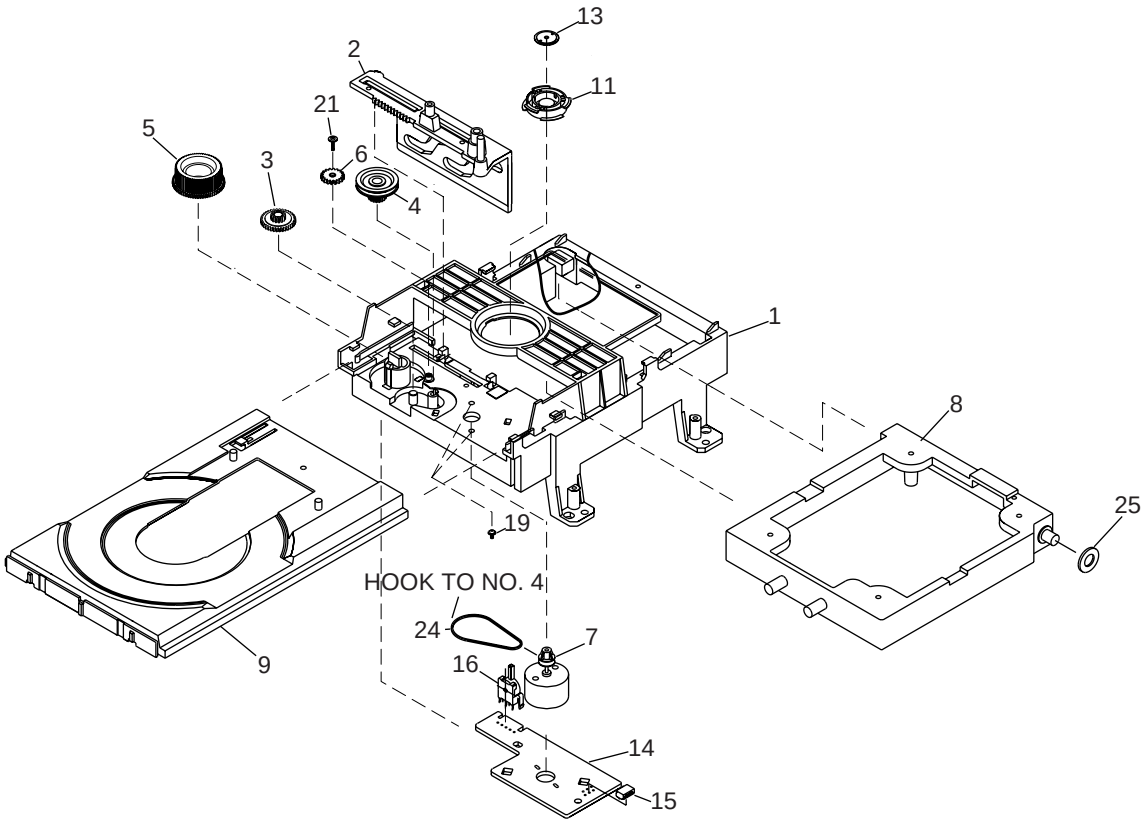
SYMBOL	STYLE	PARTS NAME
5110		+B.H .M .S CREW
5126		+B.H .TAP TITE SCREWW /WASHER
5127		+B.H .TAP TITE SCREW(W/)
5128		+B.H .TAP TITE SCREW(BTYPE)
5129		+B.H .TAP TITE SCREW(W/T. L. WASHER)
5150		+F.H .TAP TITE SCREW(BT YPE)
5192		+P.H .M .SCREW(MI NUT E)
5402		FLAT WASHERS
5404		SPRING LOCK WASHERS

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
001B	/F		FRONT PANEL ASSY GOLD HAIR	08AK248520
001B	/L/N/S	08AK248510	FRONT PANEL ASSY GOLD BLAST	08AK248510
002B	/F		FRONT PANEL GOLD HAIR LINE	08AK248120
002B	/L/N/S	08AK248110	FRONT PANEL GOLD BLAST	08AK248110
003B		269J063110	ESCUTCHEON GOLD	269J063110
005B		269J355010	LENS FOR DISPLAY	269J355010
006B		08AK353110	RING GOLD NO.2 PLAY/STOP/PAUSE	08AK353110
010B		08AK251010	BADGE SACD	08AK251010
013B		08AK158010	WINDOW	08AK158010
019B		08AK270120	BUTTON FOR PLAY/STOP/PAUSE	08AK270120
020B		08AK270130	BUTTON FOR OPEN/CLOSE	08AK270130
021B		08AK270140	BUTTON FOR DISPLAY	08AK270140
022B		08AK270150	BUTTON FOR S.MODE/TIME/PHAN-C	08AK270150
024B		08AK270110	BUTTON FOR POWER SWITCH	08AK270110
025B		284T154240	KNOB FOR PHONES VOLUME	284T154240
001D		411K257110	TOP LID GOLD	411K257110
005D		323S010020	SCREW FOR TOP LID GOLD	323S010020
006D		269J249110	SIDE PANEL GOLD	269J249110
010D		323S010020	SCREW FOR SIDE PANEL GOLD	323S010020
004G		291K057010	LEG GOLD BLAST	291K057010
012G		08AK121010	LINK FOR POWER SWITCHE	08AK121010
001M		01AK304010	MECHA LOADER ASSY	01AK304010
002M		01AK130030	DUMPER FRONT	01AK130030
003M		01AK130040	DUMPER REAR	01AK130040
004M		01AK010010	SCREW DUMPER + LOADER	01AK010010
005M		01AK063120	ESCUTCHEON FOR CD TRAY MZ378	01AK063120
006M		392K063160	ESCUTCHEON SCD LOGO	392K063160
008M		01AK304020	MECHA TRAVERSE UNIT	01AK304020
⚠ J001		YJ04002550	JACK AC INLET HF-301	YJ04002550
J407		YT02011300	TERMINAL EW-2560T-LH-B FOR CENTER	YT02011300
J408		YT02011300	TERMINAL EW-2560T-LH-B FOR WOOFER	YT02011300
J607		YT02011290	TERMINAL EW-2560T-LH-W SL-CH	YT02011290
J608		YT02011280	TERMINAL EW-2560T-LH-R SR-CH	YT02011280
J707		YT02011290	TERMINAL EW-2560T-LH-W CENTER-CH	YT02011290
J708		YT02011280	TERMINAL EW-2560T-LH-R LFE-CH	YT02011280
⚠ L001	/F		MAINS TRANSF. 100V 50/60HZ	TS46010060
⚠ L001	/L		MAINS TRANSF. 110/220V	TS46010090
⚠ L001	/N/S	TS46010070	MAINS TRANSF. 230V 50/60HZ	TS46010070
L003		FC50230010	FERRITE CORE TFCK-23-11-14	FC50230010
L011		FC50270040	FERRITE CORE USB-4 FOR W901	FC50270040
L012		FC90280010	FERRITE CORE HF70SH28X2X10 FOR WF04	FC90280010
L013		FC90280010	FERRITE CORE HF70SH28X2X10 FOR WF03	FC90280010
L014		FC90280010	FERRITE CORE HF70SH28X2X10 FOR WF07	FC90280010
L015		FC50270040	FERRITE CORE USB-4 FOR L001	FC50270040
L016		FC50270040	FERRITE CORE USB-4 FOR WF02	FC50270040
W101		nsp	JUMPER LEAD J101-OPT_UNIT FFC 1MM 25P	YU25080550
WF03		nsp	JUMPER LEAD SMCD-15X80-BDX6-P1.0-S4-M	YU15080520
WF04		nsp	JUMPER LEAD JF01-J105 FFC 1MM-PITCH 25P	YU25100550
WF05		nsp	JUMPER LEAD JF02-J106 FFC 1MM-PITCH 25P	YU25100550
WF07		nsp	JUMPER LEAD JF03-JY01 FFC 1MM-PITCH 17P	YU17120520
WF08		nsp	JUMPER LEAD J104-TRAY FFC 1.25MM-PITCH 6P	YU06060520

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PACKING	
001T	/F		USER GUIDE SA-17S1 F	08AK851110
001T	/L		USER GUIDE SA-17S1 K	08AK851310
001T	/N/S	08AK851350	USER GUIDE SA-17S1 N	08AK851350
T100		ZK08AK0010	REMOTE CONTROLLER RC-17SAS1	ZK08AK0010
⚠ W001	/F		MAINS CORD 3P MITY FOR F OFC	ZC01802080
⚠ W001	/L		MAINS CORD UL/CSA 10A 125V	ZC01803100
⚠ W001	/N	ZC01803080	MAINS CORD 2P 10A 250V CLASS2	ZC01803080
⚠ W001	/S		MAINS CORD 250V 10A FOR UK	ZC01804100
			NOT STANDARD SPARE PARTS	
001S		nsp	PACKING CASE	08AK801010
002S		nsp	CUSHION FOR SET LEFT	410K809010
003S		nsp	CUSHION FOR SET RIGHT	410K809020
009S		nsp	CUSHION FOR SET	08AK809030

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

10. MECHA LOADER ASS'Y



NO	VERS. COLOR	PART NO.	DESCRIPTION	
1		nsp	CHASSIS-MAIN	62-210-1015
2		01AK054010	CAM SLIDER	62-239-2017
3		01AK058010	GEAR LOAD A	62-222-4003
4		01AK058020	PULLEY GEAR	62-223-4004
5		01AK058030	GEAR LOAD TRY	62-222-3005
6		01AK058040	GEAR B	62-222-4006
7		KM01AK13J3	ASS'Y MOTOR	62-093-4023
8		01AK401010	CHASSIS SUB	62-211-2007
9		01AK163010	TRAY	62-218-1016
10		nsp		
11		01AK004010	CLAMPER-2	62-223-3041
12		nsp		
13		nsp	YOKE	56-119-4030
14		nsp	PWB	62-070-3018
15		nsp	CONNECTOR	6FESTVKN
16		*SM000380R	LEVER SWITCH	F501-0012
17		nsp		
18		nsp		
19		nsp	SCREW	GSP14A25027
20		nsp		
21		nsp	SCREW	03-300-4525
22		nsp		
23		nsp		
24		01AK264010	BELT LOADING	02-084228
25		nsp	WASHER	GWP52X100025
26		nsp		
27		nsp		
28		nsp		
29		nsp		
30		nsp		
31		nsp		

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

11. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R✻✻✻: 1) GD05×××140, Carbon film fixed resistor, ±5% 1/4W
R✻✻✻: 2) GD05×××160, Carbon film fixed resistor, ±5% 1/6W
① ——— Resistance value

Examples ;
① Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C✻✻✻: CERAMIC CAP.
3) DD1××××370, Ceramic capacitor
② ③ Disc type
Temp.coeff.P350 ～N1000, 50V
③ ——— Capacity value
② ——— Tolerance

Examples ;
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5% 5
✻ Tolerance of COMMON PARTS handled here are as follows :
0.5 pF～ 5 pF .... ±0.25 pF
6 pF～ 10 pF .... ±0.5 pF
12 pF～ 560 pF .... ±5%
③ Capacity value

0.5 pF 005	3 pF 030	100 pF 101	
1 pF 010	10 pF 100	220 pF 221	
1.5 pF 015	47 pF 470	560 pF 561	

C✻✻✻ : CERAMIC CAP.
4) DK16×××300, High dielectric constant ceramic capacitor
④ Disc type
Temp.chara. 2B4, 50V
④ ——— Capacity value

Examples ;
④ Capacity value

100 pF 101	1000 pF 102	10000 pF 103
470 pF 471	2200 pF 222	

C✻✻✻ : 5) ELECTROLY CAP. (⏚), 6) FILM CAP. (⏤)
5) EA×××××××10, Electrolytic capacitor
⑤ ⑥ One-way lead type, Tolerance ±20%
⑥ ——— Working voltage
⑤ ——— Capacity value

Examples ;
⑤ Capacity value

0.1 µF 104	4.7 µF 475	100 µF 107
0.33 µF 334	10 µF 106	330 µF 337
1 µF 105	22 µF 226	1100 µF 118
		2200 µF 228

⑥ Working voltage

6.3V 006	25V 025
10V 010	35V 035
16V 016	50V 050

6) DF15××× 350 → Plastic film capacitor
DF15××× 310 One-way type, Mylar ±5% 50V
DF16××× 310 → Plastic film capacitor
⑦ One-way type, Mylar ±10% 50V
⑦ ——— Capacity value

Examples ;
⑦ Capacity value

0.001 µF (1000 pF) 102	0.1 µF 104
0.0018 µF 182	0.56 µF 564
0.01 µF 103	1 µF 105
0.015 µF 153	

NOTE : 1) The above CODES (R✻✻✻ , R✻✻✻ , C✻✻✻ , C✻✻✻ and C✻✻✻) are omitted on the schematic diagram in some case.
2) On the occasion, be confirmed the common parts on the parts list.
3) Refer to "Common Parts List" for the other common parts (**RI05**, **DD4**, **DK4**).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05×××140	→ RF25S××××ΩJ	(±5% 1/4W)
NH05×××120	→ RF50S××××ΩJ	(±5% 1/2W)
NH85×××110	→ RF73B2A××××ΩJ	(±5% 1/10W)
NH95×××140	→ RF73B2E××××ΩJ	(±5% 1/4W)

✻ Resistance value — Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05×××140	→ ERD-2FCJ×××	(±5% 1/4W)
RF05×××140		
NF02×××140	→ ERD-2FCG×××	(±2% 1/4W)
RF02×××140		

✻Resistance value — ✻Resistance value

Examples ;
✻Resistance value

0.1 Ω 001	10 Ω 100	1 kΩ 102	100 kΩ 104
0.5 Ω 005	18 Ω 180	2.7 kΩ 272	680 kΩ 684
1 Ω 010	100 Ω 101	10 kΩ 103	1 MΩ 105
6.8 Ω 068	390 Ω 391	22 kΩ 223	4.7 MΩ 475

ABBREVIATION AND MARKS

ANT.	: ANTENNA	BATT.	: BATTERY
CAP.	: CAPACITOR	CER.	: CERAMIC
CONN.	: CONNECTING	DIG.	: DIGITAL
HP	: HEADPHONE	MIC.	: MICROPHONE
µ-PRO	: MICROPROCESSOR	REC.	: RECORDING
RES.	: RESISTOR	SPK	: SPEAKER
SW	: SWITCH	TRANSF.	: TRANSFORMER
TRIM.	: TRIMMING	TRS.	: TRANSISTOR
VAR.	: VARIABLE	X'TAL	: CRYSTAL

NOTE ON FUSE :

Regarding to all parts of parts code **FS20**xxx**2**xx, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意：

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

010728MIT

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PA16-POWER AUDIO	
			CIRCUIT BOARD	
			PA16-CAPACITORS	
C401	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C401	/N	OF55182550	FILM 1800pF 100V	OF55182550
C402	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C402	/N	OF55331550	FILM 330pF 100V	OF55331550
C404	/F/L/S		FILM 120pF J 100V APSV	OF15121540
C404	/N	OF55121550	FILM 120pF 100V	OF55121550
C405		nsp	ELECT. 470µF M 16V ARA	OA47701650
C406		nsp	ELECT. 470µF M 16V ARA	OA47701650
C409	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C409	/N	OF55122550	FILM 1200pF 100V	OF55122550
C410	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C410	/N	OF55561550	FILM 560pF 100V	OF55561550
C412	/F/L/S		FILM 680pF 100V DTG	OF55681570
C412	/N	OF55681550	FILM 680pF 100V	OF55681550
C413		nsp	ELECT. 470µF M 16V ARA	OA47701650
C414		nsp	ELECT. 470µF M 16V ARA	OA47701650
C416		nsp	ELECT. 100µF 25V ARS	OA10702540
C451	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C451	/N	OF55182550	FILM 1800pF 100V	OF55182550
C452	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C452	/N	OF55331550	FILM 330pF 100V	OF55331550
C454	/F/L/S		FILM 120pF J 100V APSV	OF15121540
C454	/N	OF55121550	FILM 120pF 100V	OF55121550
C459	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C459	/N	OF55122550	FILM 1200pF 100V	OF55122550
C460	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C460	/N	OF55561550	FILM 560pF 100V	OF55561550
C462	/F/L/S		FILM 680pF 100V DTG	OF55681570
C462	/N	OF55681550	FILM 680pF 100V	OF55681550
C466		nsp	ELECT. 100µF 25V ARS	OA10702540
C601	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C601	/N	OF55182550	FILM 1800pF 100V	OF55182550
C602	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C602	/N	OF55331550	FILM 330pF 100V	OF55331550
C604	/F/L/S		FILM 120pF J 100V APSV	OF15121540
C604	/N	OF55121550	FILM 120pF 100V	OF55121550
C605		nsp	ELECT. 470µF M 16V ARA	OA47701650
C606		nsp	ELECT. 470µF M 16V ARA	OA47701650
C609	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C609	/N	OF55122550	FILM 1200pF 100V	OF55122550
C610	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C610	/N	OF55561550	FILM 560pF 100V	OF55561550
C612	/F/L/S		FILM 680pF 100V DTG	OF55681570
C612	/N	OF55681550	FILM 680pF 100V	OF55681550
C613		nsp	ELECT. 470µF M 16V ARA	OA47701650
C614		nsp	ELECT. 470µF M 16V ARA	OA47701650
C616		nsp	ELECT. 100µF 25V ARS	OA10702540
C651	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C651	/N	OF55182550	FILM 1800pF 100V	OF55182550
C652	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C652	/N	OF55331550	FILM 330pF 100V	OF55331550
C654	/F/L/S		FILM 120pF J 100V APSV	OF15121540
C654	/N	OF55121550	FILM 120pF 100V	OF55121550
C659	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C659	/N	OF55122550	FILM 1200pF 100V	OF55122550
C660	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C660	/N	OF55561550	FILM 560pF 100V	OF55561550
C662	/F/L/S		FILM 680pF 100V DTG	OF55681570
C662	/N	OF55681550	FILM 680pF 100V	OF55681550
C666		nsp	ELECT. 100µF 25V ARS	OA10702540
C701	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C701	/N	OF55182550	FILM 1800pF 100V	OF55182550
C702	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C702	/N	OF55331550	FILM 330pF 100V	OF55331550
C704	/F/L/S		FILM 120pF J 100V APSV	OF15121540

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C704	/N	OF55121550	FILM 120pF 100V	OF55121550
C705		nsp	ELECT. 470µF M 16V ARA	OA47701650
C706		nsp	ELECT. 470µF M 16V ARA	OA47701650
C709	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C709	/N	OF55122550	FILM 1200pF 100V	OF55122550
C710	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C710	/N	OF55561550	FILM 560pF 100V	OF55561550
C712	/F/L/S		FILM 680pF 100V DTG	OF55681570
C712	/N	OF55681550	FILM 680pF 100V	OF55681550
C713		nsp	ELECT. 470µF M 16V ARA	OA47701650
C714		nsp	ELECT. 470µF M 16V ARA	OA47701650
C716		nsp	ELECT. 100µF 25V ARS	OA10702540
C751	/F/L/S		FILM 1800pF TP 100V PP APSV	OF15182540
C751	/N	OF55182550	FILM 1800pF 100V	OF55182550
C752	/F/L/S		FILM 330pF TP 100V PP APSV	OF15331540
C752	/N	OF55331550	FILM 330pF 100V	OF55331550
C754	/F/L/S		FILM 120pF J 100V APSV	OF15121540
C754	/N	OF55121550	FILM 120pF 100V	OF55121550
C759	/F/L/S		FILM 1200pF TP 100V PP APSV	OF15122540
C759	/N	OF55122550	FILM 1200pF 100V	OF55122550
C760	/F/L/S		FILM 560pF TP 100V PP APSV	OF15561540
C760	/N	OF55561550	FILM 560pF 100V	OF55561550
C762	/F/L/S		FILM 680pF 100V DTG	OF55681570
C762	/N	OF55681550	FILM 680pF 100V	OF55681550
C766		nsp	ELECT. 100µF 25V ARS	OA10702540
C801		nsp	ELECT. 6800µF 16V ±20% RA-2	OA68801620
C802		nsp	ELECT. 3300µF M 6.3V RA-2	OA33800620
C805		nsp	ELECT. 6800µF 16V	OA68801620
C806		nsp	ELECT. 3300µF M 6.3V RA-2	OA33800620
C809		nsp	ELECT. 3300µF M 6.3V RA-2	OA33800620
C810		OC47701620	ELECT. 470µF 16V 10X12.5 ARE2	OC47701620
C822		nsp	ELECT. 4700µF 25V RA-2	OA47802520
C823		nsp	ELECT. 470µF 16V M RA-2	OA47701620
CD21		nsp	ELECT. 10µF 63V RA-2	OA10606320
CD22		nsp	ELECT. 100µF M 10V RA-2	OA10701020
CD25		nsp	ELECT. 47µF M 25V RA-2	OA47602520
CD26		nsp	ELECT. 220µF M 25V RA-2	OA22702520
CD41		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD44		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD45		nsp	ELECT. 10µF 25V ARA	OA10602550
CD47		nsp	ELECT. 100µF 10V ARA	OA10701050
CD61		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD64		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD65		nsp	ELECT. 10µF 25V ARA	OA10602550
CD67		nsp	ELECT. 100µF 10V ARA	OA10701050
CD71		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD74		nsp	ELECT. 100µF M 16V RA-2	OA10701620
CD75		nsp	ELECT. 10µF 25V ARA	OA10602550
CD77		nsp	ELECT. 100µF 10V ARA	OA10701050
CT05		nsp	ELECT. 100µF 25V ARS	OA10702540
			PA16-RESISTORS	
R415		nsp	5.1kΩ ±5% 1/6W	GD05512160
R465		nsp	5.1kΩ ±5% 1/6W	GD05512160
R615		nsp	5.1kΩ ±5% 1/6W	GD05512160
R665		nsp	5.1kΩ ±5% 1/6W	GD05512160
R715		nsp	5.1kΩ ±5% 1/6W	GD05512160
R765		nsp	5.1kΩ ±5% 1/6W	GD05512160
RT03		nsp	75Ω ±5% 1/6W	GD05750160
			PA16-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R401-R414 R422-R441	
			R443 R451-R464 R472-R495	
			R601-R614 R622-R646 R651-R664	
			R672-R691 R693 R694 R696	
			R701-R714 R722-R741 R743 R744	
			R751-R764 R772-R791 R793 R794	
			R801-R803 RD22-RD25 RD27	

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			RD42 RD45 RD65 RD64 RD65	
			RD72 RD74 RD75 RT01 RT02 RY17	
			PA16-SEMICONDUCTORS	
D401				
⟆		nsp	DIODE	HD20002000
D413			1SS176 MA165 1SS254 30V 0.1A	
D421		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
D451				
⟆		nsp	DIODE	HD20002000
D463			1SS176 MA165 1SS254 30V 0.1A	
D491		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
D601				
⟆		nsp	DIODE	HD20002000
D613			1SS176 MA165 1SS254 30V 0.1A	
D651				
⟆		nsp	DIODE	HD20002000
D663			1SS176 MA165 1SS254 30V 0.1A	
D691		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
D701				
⟆		nsp	DIODE	HD20002000
D713			1SS176 MA165 1SS254 30V 0.1A	
D751				
⟆		nsp	DIODE	HD20002000
D763			1SS176 MA165 1SS254 30V 0.1A	
D791		nsp	DIODE	HD20002000
			1SS176 MA165 1SS254 30V 0.1A	
⚠ D801				
⟆		HD20055100	DIODE	HD20055100
⚠ D808			SHOTTKY 11EQS10 1A 100V	
⚠ D821				
⟆		HD20055100	DIODE	HD20055100
⚠ D824			SHOTTKY 11EQS10 1A 100V	
Q401		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q403		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q404		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q405		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q406		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q407		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q408		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q409		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q411		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q412		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q413		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q414		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q415		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q416		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q417		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q418		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q419		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q420				
⟆		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q423				
Q424		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q451		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q453		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q454		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q455		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q456		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q457		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q458		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q459		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q461		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q462		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q463		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q464		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q465		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q466		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q467		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q468		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q469		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q470				
⟆		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q473				
Q474		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q601		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q603		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q604		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q605		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q606		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q607		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q608		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q609		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q611		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q612		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q613		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q614		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q615		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q616		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q617		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q618		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q619		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q620				
⟆		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q623				
Q624		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q651		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q653		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q654		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q655		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q656		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q657		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q658		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q659		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q661		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q662		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q663		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q664		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q665		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q666		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q667		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q668		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q669		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q670				
⟆		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q673				
Q674		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q701		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q703		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q704		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q705		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q706		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q707		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q708		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q709		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q711		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q712		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q713		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q714		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q715		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q716		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q717		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q718		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
Q719		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q720 ∫ Q723		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q724		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q751		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q753		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q754		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q755		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q756		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q757		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q758		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q759		HF203892A0	F.E.T. 2SK389 GR OR BL	HF203892A0
Q761		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q762		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q763		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q764		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q765		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q766		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q767		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q768		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q769		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q770 ∫ Q773		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q774		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
⚠ Q801		HC3690521F	IC BA05T 5V/1A TO220	HC3690521F
⚠ Q802		HC3690521F	IC BA05T 5V/1A TO220	HC3690521F
⚠ Q803		HC3891532F	IC PQ15RW11 3.0 15 VARI REG.	HC3891532F
⚠ Q821		HC3890809F	IC NJM7808FA +8V 1A REG	HC3890809F
QD21		BA20004000	DIG.TRS. DTC114TS UN4215 10k	BA20004000
QD22		BA20004000	DIG.TRS. DTC114TS UN4215 10k	BA20004000
QD23		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
QD24		HT328782A0	TRS. 2SC2878 A OR BRANK	HT328782A0
QD25		HT324582B0	TRS. 2SC2458 Y OR GR	HT324582B0
QD26		HT324582B0	TRS. 2SC2458 Y OR GR	HT324582B0
QD27		HT324582B0	TRS. 2SC2458 Y OR GR	HT324582B0
QD41		HC10008880	IC CS4397 DSD/PCD DAC 24BIT 192K	HC10008880
QD60		HC010605K0	IC TC74VHC86F SOP	HC010605K0
QD61		HC10008880	IC CS4397 DSD/PCD DAC 24BIT 192K	HC10008880
QD71		HC10008880	IC CS4397 DSD/PCD DAC 24BIT 192K	HC10008880
QT01		HC700400D0	IC 74HC04 HI-SPEED C-MOS	HC700400D0
			PA16-MISCELLANEOUS	
⚠ F801		FS20125200	FUSE T1.25A 250V VDE SEMKO	FS20125200
⚠ F821		FS20080200	FUSE T800mA 250V VDE SEMKO	FS20080200
JT02		YT02010790	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
JT03		YJ15000220	OPT. CONNECTOR TOTX179L TOSLINK TRANSCEIVER	YJ15000220
L401		LY20120620	RELAY ED2-12NU NEC 12V	LY20120620
L402		LY20120620	RELAY ED2-12NU NEC 12V	LY20120620
L601		LY20120620	RELAY ED2-12NU NEC 12V	LY20120620
L701		LY20120620	RELAY ED2-12NU NEC 12V	LY20120620
L801		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
L802		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
L803		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
L821		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
LT01		TP41042030	PULSE TRANSF. TPS247MN-0386AN	TP41042030
LT02		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
			PF16-RC-5 FILTER SW CIRCUIT BOARD	
CF54		nsp	ELECT. 10µF 63V RA-2	OA10606320
			PF16-RESISTORS (COMMON)	
R****			CARBON FILM FIXED RES. ±5% 1/6W : ALL	
DF51		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
JF51		YT02020890	TERMINAL 2P CINCH PIN JACK	YT02020890
QF51		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QF52		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
S351		SS02021150	SLIDE SWITCH FILTER SWITCH STANDARD/CUSTOM	SS02021150
SF51		SS02021150	SLIDE SWITCH SLIDE SWITCH RC-5 INT/EXT	SS02021150
			PO16-PHANTOM AMP CIRCUIT BOARD	
			PO16-CAPACITORS	
C505		nsp	ELECT. 470µF M 16V ARA	OA47701650
C506		nsp	ELECT. 470µF M 16V ARA	OA47701650
			PO16-RESISTORS (COMMON)	
R****			CARBON FILM FIXED RES. ±5% 1/6W : ALL	
			PO16-SEMICONDUCTORS	
D501 ∫ D505		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D511		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D551 ∫ D555		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q501		HF203691B0	F.E.T. 2SK369 BL VGDS-40V PD0.4W	HF203691B0
Q502		HF203691B0	F.E.T. 2SK369 BL VGDS-40V PD0.4W	HF203691B0
Q503		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q504		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q505		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q506		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q507		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q508		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
Q551		HF203691B0	F.E.T. 2SK369 BL VGDS-40V PD0.4W	HF203691B0
Q552		HF203691B0	F.E.T. 2SK369 BL VGDS-40V PD0.4W	HF203691B0
Q553		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q554		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q555		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
Q556		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q557		HF201701H0	F.E.T. 2SK170 V RANK	HF201701H0
Q558		HF100741H0	F.E.T. 2SJ74 V RANK	HF100741H0
			PO16-MISCELLANEOU	
L501		LY20120620	RELAY ED2-12NU NEC 12V	LY20120620
			PP16-POWER IN/MUTE/±12V CIRCUIT BOARD	
			PP16-CAPACITORS	
C831		nsp	ELECT. 470µF M 35V RA-2	OA47703520
C832		nsp	ELECT. 10µF 63V RA-2	OA10606320
C851		OB47803520	ELECT. CAP 4700µF M 35V FOR HIFI	OB47803520

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C852		OB47803520	ELECT. CAP 4700µF M 35V FOR HIFI	OB47803520
C855		nsp	ELECT. 47µF M 16V ARS	OA47601640
C856		nsp	ELECT. 47µF M 16V ARS	OA47601640
C857	/F/L/S		ELECT. 470µF 16V M ARA	OA47701650
C857	/N	nsp	ELECT. 470µF 16V ARS	OA47701640
C858	/F/L/S		ELECT. 470µF 16V M ARA	OA47701650
C858	/N	nsp	ELECT. 470µF 16V ARS	OA47701640
CN01		nsp	ELECT. 100µF M 50V RA-2	OA10705020
CN02		nsp	ELECT. 1µF100V RA-2	OA10510020
CN03		nsp	ELECT. 4.7µF M 50V RA-2	OA47505020
CN22		nsp	ELECT. 2.2µF M 50V RA-2	OA22505020
CN32		nsp	ELECT. 2.2µF M 50V RA-2	OA22505020
CY51		nsp	ELECT. 220µF M 50V RA-2	OA22705020
CY52		nsp	ELECT. 100µF M 50V RA-2	OA10705020
			PP16-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : ALL	
			PP16-SEMICONDUCTORS	
⚠ D831 ⟆		HD20055100	DIODE SHOTTKY	HD20055100
⚠ D834			11EQS10 1A 100V	
⚠ D851 ⟆		HD20055100	DIODE SHOTTKY	HD20055100
⚠ D854			11EQS10 1A 100V	
D856		HD30021010	ZENER DIODE HZ6L 3 6.2V	HD30021010
D857		HD30021010	ZENER DIODE HZ6L 3 6.2V	HD30021010
D858		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D859		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
⚠ DN01 ⟆		HD20055100	DIODE SHOTTKY	HD20055100
⚠ DN05			11EQS10 1A 100V	
DN06		HD30471000	ZENER DIODE 4.7V	HD30471000
DN07		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN11 ⟆		nsp	DIODE	HD20002000
DN13			1SS176 MA165 1SS254 30V 0.1A	
DY11		HD30471000	ZENER DIODE 4.7V	HD30471000
⚠ DY51 ⟆		HD20055100	DIODE SHOTTKY	HD20055100
⚠ DY54			11EQS10 1A 100V	
DY61		HD32701000	ZENER DIODE 27V	HD32701000
Q831		HC3891209F	AVR NJM7812FA +12V	HC3891209F
Q851		HF202461C0	F.E.T. 2SK246 GR	HF202461C0
⚠ Q852		HT41415100	TRS. 2SD1415A	HT41415100
Q853		HT322402A0	TRS. 2SC2240 GR OR BL	HT322402A0
Q855		HF202461C0	F.E.T. 2SK246 GR	HF202461C0
⚠ Q856		HT21020100	TRS. 2SB1020A	HT21020100
Q857		HT109702A0	TRS. 2SA970 GR OR BL	HT109702A0
QN01		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN02		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN04		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QN05		BA20004000	DIG.TRS. DTC114TS UN4215 10k	BA20004000
QN06		BA20004000	DIG.TRS. DTC114TS UN4215 10k	BA20004000
QN21		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN22		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN23		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QN31		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN32		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN33		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QN42		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QN43		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QY61		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QY62		HT30001000	TRS. C2458 C1740S C3199 ETC.	HT30001000
QY63		BA20004000	DIG.TRS. DTC114TS UN4215 10k	BA20004000
QY64		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
QY65		HT10001000	TRS. A1048 A933S A1267 ETC.	HT10001000
			PP16-MISCELLANEOUS	
⚠ F831		FS20080200	FUSE T800mA 250V VDE SEMKO	FS20080200
⚠ F851		FS20080200	FUSE T800mA 250V VDE SEMKO	FS20080200
⚠ F852		FS20080200	FUSE T800mA 250V VDE SEMKO	FS20080200
⚠ FH01	/L/N/S	FS20125200	FUSE T1.25A 250V VDE SEMKO	FS20125200
⚠ LH01	/F		MAINS TRANSF. 100V EI	TS13517050
⚠ LH01	/L/N/S	TS13517060	MAINS TRANSF. 115/230V EI	TS13517060
⚠ SH01		SP01011990	PUSH SWITCH SDDLD1 POWER TV-3	SP01011990
			PR16-HEADPHONE CIRCUIT BOARD	
			PR16-CAPACITORS	
C901		nsp	ELECT. 100µF M 10V RA-2	OA10701020
C902		nsp	ELECT. 100µF M 10V RA-2	OA10701020
C903		nsp	ELECT. 220µF M 25V RA-2	OA22702520
C904		nsp	ELECT. 220µF M 25V RA-2	OA22702520
			PR16-RESISTOR	
R950		RM01031220	VAR. RK09L12B0 10K B D-CUT NORMAL	RM01031220
			PR16-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R901-R926	
			PR16-SEMICONDUCTORS	
D901 ⟆ D906		nsp	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q901		HT110482B0	TRS. 2SA1048 Y OR GR	HT110482B0
Q902		HT110482B0	TRS. 2SA1048 Y OR GR	HT110482B0
Q903 ⟆ Q906		HT324582B0	TRS. 2SC2458 Y OR GR	HT324582B0
Q907 ⟆ Q910		HT110482B0	TRS. 2SA1048 Y OR GR	HT110482B0
Q911 ⟆ Q914		HT324582B0	TRS. 2SC2458 Y OR GR	HT324582B0
Q915		HT110482B0	TRS. 2SA1048 Y OR GR	HT110482B0
Q916		HT110482B0	TRS. 2SA1048 Y OR GR	HT110482B0
			PR16-MISCELLANEOUS	
J903		YJ01003880	H.P JACK HLJ0540-01-430 GRY	YJ01003880
L901		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
L902		FC90050130	FERRITE BEAD BL02RN2-R62T2	FC90050130
			PV16-SERVO CIRCUIT BOARD	
			PV16+CAPACITORS	
C101		EY47501050	TANTL. CHIP 4.7µF 10V	EY47501050
C102		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C103		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C104		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C107		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C108		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C109		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C110		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C111		EY33601020	TANTL. CHIP 33µF 10V	EY33601020
C112		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
C113		EY10601620	TANTL. CHIP 10µF 16V	EY10601620

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POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C114		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C115		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C116		EY33601020	TANTL. CHIP 33µF 10V	EY33601020
C117		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
C118		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C119		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C120		nsp	CER. CHIP 1µF 10V F	DK98105200
C121		EY47600620	TANTL. CHIP 47µF 6.3V	EY47600620
C122		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C123		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C124		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
C125		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
C126		nsp		
ʃ		nsp	CER. CHIP 2200pF GR39	DK96222300
C129		nsp		
C130				
ʃ		nsp	CER. CHIP	DD95220300
C133			22pF ±5% CG 50V GR39	
C134		nsp	CER. CHIP 330pF GR39	DK96331300
C135		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C136		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C137		nsp	CER. CHIP 0.033µF ±10%	DK96333200
C138		nsp	CER. CHIP 0.033µF ±10%	DK96333200
C139		nsp	CER. CHIP 150pF ±5% CG 50V	DD95151300
C140		nsp	CER. CHIP 0.047µF ±10% X7R 16V	DK96473200
C141		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C142		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C143		nsp	CER. CHIP 1µF 10V F	DK98105200
C144		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C145		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C146		EY47600620	TANTL. CHIP 47µF 6.3V	EY47600620
C147		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C148		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C149		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C150		nsp	CER. CHIP 1500pF GR39	DK96152300
C151		nsp	CER. CHIP 1500pF GR39	DK96152300
C152		nsp	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C153		nsp	CER. CHIP 3300pF GR39	DK96332300
C154		nsp	CER. CHIP 3300pF GR39	DK96332300
C155		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C156		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C157		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C158		nsp	CER. CHIP 1pF ±0.25pF CK 50V	DD90010300
C159		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C160		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C161		nsp	CER. CHIP 1pF ±0.25pF CK 50V	DD90010300
C162		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C163		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C164		nsp	CER. CHIP 0.047µF ±10% X7R 16V	DK96473200
C165		nsp	CER. CHIP 330pF GR39	DK96331300
C166		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C167		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C168		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C169		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C170		nsp	CER. CHIP 150pF ±5% CG 50V	DD95151300
C171		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C172		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C173		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C174		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C175		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C176				
ʃ		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C179				
C180		nsp	CER. CHIP 270pF ± 5%	DD95271300
C181		nsp	CER. CHIP 0.047µF ±10% X7R 16V	DK96473200
C182		nsp	CER. CHIP 470pF GR39	DK96471300
C183		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C184		nsp	CER. CHIP 1µF 10V F	DK98105200

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C185		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C186		nsp	CER. CHIP 0.01µF ±10% 50V	DK96103300
			C1608JB1H103K	
C187		nsp	CER. CHIP 0.47µF 10V B BJ ±10%	DK96474200
C188		nsp	CER. CHIP 1500pF GR39	DK96152300
C189		nsp	CER. CHIP 0.047µF ±10% X7R 16V	DK96473200
C190		nsp	CER. CHIP 220pF GR39	DK96221300
C191		nsp	CER. CHIP 1µF 10V F	DK98105200
C192		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C193		nsp	CER. CHIP 1µF 10V F	DK98105200
C194		nsp	CER. CHIP 10pF ±0.5pF CH 50V	DD91100300
C195		nsp	CER. CHIP 7pF ±0.5pF CH 50V	DD91070300
C196		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C197		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C198		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C199		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C200		nsp	CER. CHIP 0.1µF 16V	DK98104200
C201		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C202		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C203		nsp	CER. CHIP 560pF	DK96561300
C204		nsp	CER. CHIP 470pF GR39	DK96471300
C205		nsp	CER. CHIP 560pF	DK96561300
C206		nsp	CER. CHIP 2200pF GR39	DK96222300
C207		nsp	CER. CHIP 220pF GR39	DK96221300
C208		nsp	CER. CHIP 0.1µF 16V	DK96104200
C209		nsp	CER. CHIP 220pF GR39	DK96221300
C210		nsp	CER. CHIP 0.1µF 16V	DK96104200
C211		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C212		EY47601620	TANTL. CHIP 47µF 16V	EY47601620
C213		EY47601620	TANTL. CHIP 47µF 16V	EY47601620
C214		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C215		nsp	CER. CHIP 0.01µF 16V	DK96103300
C216		nsp	CER. CHIP 0.068µF ±10%	DK96683200
C217		nsp	CER. CHIP 2200pF GR39	DK96222300
C218		nsp	CER. CHIP 0.068µF ±10%	DK96683200
C219		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C220		EY10601620	TANTL. CHIP 10µF 16V	EY10601620
C222		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C225		nsp	CER. CHIP 0.01µF ±10% 50V	DK96103300
			C1608JB1H103K	
C226		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C227		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C228		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C229		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C230		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C231		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C232		nsp	CER. CHIP 2pF ±0.25pF CK 50V	DD90020300
C233		nsp	CER. CHIP 2pF ±0.25pF CK 50V	DD90020300
C234		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C235		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C236		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C237		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C238				
ʃ		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C242				
C245				
ʃ		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C249				
C250		nsp	CER. CHIP 1µF 10V F	DK98105200
C251		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C252				
ʃ		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C255				
C256		DK06104200	CER. CHIP 0.1µF ±10% B 10V	DK06104200
C257		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C258		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C259		nsp	CER. CHIP 1µF 10V F	DK98105200

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
C260		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C261		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C262		nsp	CER. CHIP 0.1µF ±10% B 10V	DK96104200
C263		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C264		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C268		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C269		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C270		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C271		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C272		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C273				
ʃ		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C277				
C278		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C279		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C280		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C281		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C282		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C283		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C284		nsp	CER. CHIP 0.01µF ±10% 50V C1608JB1H103K	DK96103300
C285		nsp	CER. CHIP 0.47µF 10V B BJ ±10%	DK96474200
C286		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C287		nsp	CER. CHIP 4700pF ±10% B 50V	DK96472300
C289		nsp	CER. CHIP 0.01µF ±10% 50V C1608JB1H103K	DK96103300
C290		nsp	CER. CHIP 0.01µF ±10% 50V C1608JB1H103K	DK96103300
C291		nsp	CER. CHIP 1µF 10V F	DK98105200
C292		nsp	CER. CHIP 220pF GR39	DK96221300
C293		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C294		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C295		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C296		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C297		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C301		nsp	CER. CHIP 1000pF ±10% B 50V	DK96102300
C302		nsp	CER. CHIP 0.047µF ±10% X7R 16V	DK96473200
C303		nsp	CER. CHIP 0.47µF 10V B BJ ±10%	DK96474200
C304		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C308		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C309		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C310		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C311		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C312		DK06104200	CER. 0.1µF ±10% B 10V	DK06104200
C313		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C315		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C316		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C317		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C320		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C321		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C322		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C323		nsp	CER. CHIP 22pF ±5% CG 50V	DD95220300
C324		nsp	CER. CHIP 100pF ±5% CG 50V	DD95101300
C336		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C337		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C339		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C340		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C342		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C343		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C344		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C345		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C346		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C347		EY10700620	TANTL. CHIP 100µF 6.3V	EY10700620
C348		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
C357		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
C360		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
C362		EY47501050	TANTL. CHIP 4.7µF 10V	EY47501050
C363		nsp	CER. CHIP 0.1µF 16V	DK96104200

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
CF02		nsp	CER. CHIP 0.1µF 16V	DK98104200
CF03		nsp	CER. CHIP 0.1µF 16V	DK98104200
CF04		nsp	CER. CHIP 1µF 10V F	DK98105200
CF05		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CF06		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CF07		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CF08		EY22600620	TANTL. CHIP 22µF 6.3V	EY22600620
CF09				
ʃ		nsp	CER. CHIP 0.1µF GRM39F104Z16	DK98104200
CF12				
CF13		nsp	CER. CHIP 2200pF GR39	DK96222300
			PV16-RESISTORS	
R101		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R102		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R103		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R104		nsp	CHIP 11kΩ ±5% 1/16W	NN05113610
R105		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R106		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R107		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R108		nsp	CHIP 11kΩ ±5% 1/16W	NN05113610
R109		nsp	CHIP 470Ω ±5% 1/16W	NN05471610
R110		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R111		nsp	CHIP 470Ω ±5% 1/16W	NN05471610
R112		nsp	CHIP 33Ω ±5% 1/16W	NN05330610
R113		nsp	CHIP 33Ω ±5% 1/16W	NN05330610
R114		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R115		nsp	CHIP 470Ω ±5% 1/16W	NN05471610
R116		nsp	CHIP 33Ω ±5% 1/16W	NN05330610
R117		nsp	CHIP 33Ω ±5% 1/16W	NN05330610
R118		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R119		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R121		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R123		nsp	CHIP 10MΩ ±5% 1/16W	NN05106610
R125		NI01123110	CHIP 12kΩ ±1% 1/10W	NI01123110
R126		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R128		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R129		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R130		nsp	CHIP MCR03EZHUJ363 2120 108 92212	NN05363610
R131		nsp	CHIP 8.2kΩ ±5% 1/16W	NN05822610
R132		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R133		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R134		nsp	CHIP 15kΩ ±5% 1/16W	NN05153610
R135		nsp	CHIP 51Ω ±5% 1/16W	NN05510610
R136		nsp	CHIP 51Ω ±5% 1/16W	NN05510610
R137		nsp	CHIP 51Ω ±5% 1/16W	NN05510610
R138		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R139		nsp	CHIP MCR03EZHUJ202 2120 108 92178	NN05202610
R140		nsp	CHIP MCR03EZHUJ202 2120 108 92178	NN05202610
R141		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R142		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R143		nsp	CHIP 3.3kΩ ±5% 1/16W	NN05332610
R144		nsp	CHIP 330kΩ ±5% 1/16W	NN05334610
R145		nsp	CHIP 3kΩ ±5% 1/16W	NN05302610
R146		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R147		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R148		nsp	CHIP 3.3kΩ ±5% 1/16W	NN05332610
R149		nsp	CHIP 330kΩ ±5% 1/16W	NN05334610
R150		nsp	CHIP 3kΩ ±5% 1/16W	NN05302610
R151		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R152		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R153		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R154		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R155		nsp	CHIP 330kΩ ±5% 1/16W	NN05334610
R156		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R157		nsp	CHIP 1.5kΩ ±5% 1/16W	NN05152610

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
R158		nsp	CHIP 1.5kΩ ±5% 1/16W	NN05152610
R159		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R160		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R161		nsp	CHIP 1MΩ ±5% 1/16W	NN05105610
R162		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R163		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R164		nsp	CHIP 1MΩ ±5% 1/16W	NN05105610
R165		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R167		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R168		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R169		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R170		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R171		nsp	CHIP 12kΩ ±5% 1/16W	NN05123610
R172		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R173		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R174		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R175		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R176		nsp	CHIP 100kΩ ±5% 1/16W	NN05104610
R177		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R178		nsp	CHIP 3.3kΩ ±5% 1/16W	NN05332610
R179		nsp	CHIP 3.3kΩ ±5% 1/16W	NN05332610
R180		nsp	CHIP 470kΩ ±5% 1/16W	NN05474610
R181		nsp	CHIP 1MΩ ±5% 1/16W	NN05105610
R182		nsp	CHIP 470kΩ ±5% 1/16W	NN05474610
R183 ∫ R186		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R187		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R188		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R189		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R190		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R191		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R192		nsp	CHIP 220Ω ±5% 1/16W	NN05221610
R193		nsp	CHIP 10Ω ±5% 1/16W	NN05100610
R195		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R196		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R197		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R201		nsp	CHIP 5.6kΩ ±5% 1/16W	NN05562610
R202		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R203		nsp	CHIP 1.8kΩ ±5% 1/16W	NN05182610
R204		nsp	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R205		nsp	CHIP 1.8kΩ ±5% 1/16W	NN05182610
R206		nsp	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R207		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R208		nsp	CHIP 5.6kΩ ±5% 1/16W	NN05562610
R209		nsp	CHIP 56kΩ ±5% 1/16W	NN05563610
R210		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R211		nsp	CHIP 56kΩ ±5% 1/16W	NN05563610
R212		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R213		nsp	CHIP 56kΩ ±5% 1/16W	NN05563610
R214		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R215		nsp	CHIP 56kΩ ±5% 1/16W	NN05563610
R216		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R217		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R218		nsp	CHIP 27kΩ ±5% 1/16W	NN05273610
R219		nsp	CHIP 27kΩ ±5% 1/16W	NN05273610
R220		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R221		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R222		nsp	CHIP 150kΩ ±5% 1/16W	NN05154610
R223		nsp	CHIP 150kΩ ±5% 1/16W	NN05154610
R224		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R225		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R226		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R227		nsp	CHIP 15kΩ ±5% 1/16W	NN05153610
R228		nsp	CHIP 5.1kΩ ±5% 1/16W	NN05512610
R229		nsp	CHIP MCR03EZHUJ202 2120 108 92178	NN05202610

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
R230		nsp	CHIP MCR03EZHUJ202 2120 108 92178	NN05202610
R231		nsp	CHIP 3kΩ ±5% 1/16W	NN05302610
R232		nsp	CHIP 3kΩ ±5% 1/16W	NN05302610
R234		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R235		NP05103610	CHIP 10kΩ ±5% 1/16W	NP05103610
R236		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R237 ∫ R242		NP05103610	CHIP 10kΩ ±5% 1/16W	NP05103610
R243		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R251		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R252		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R253		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R254		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R255		NM11502020	CHIP 15kΩ ±1% 1/16W	NM11502020
R256		NM11502020	CHIP 15kΩ ±1% 1/16W	NM11502020
R259		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R261		nsp	CHIP 33kΩ ±5% 1/16W	NN05333610
R262		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R263		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R264		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R265		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R266		nsp	CHIP 6.8kΩ ±5% 1/16W	NN05682610
R267		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R271		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R272		nsp	CHIP 9.1kΩ ±5% 1/16W	NN05912610
R273		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R274		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R275		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R276		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R277		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R278		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R279		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R282		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R283		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R285 ∫ R294		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R295		nsp	CHIP 100kΩ ±5% 1/16W	NN05104610
R296		NP05103610	CHIP 10kΩ ±5% 1/16W	NP05103610
R297		nsp	CHIP 4.3kΩ ±5% 1/16W	NN05432610
R301		nsp	CHIP 5.6kΩ ±5% 1/16W	NN05562610
R302		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R303		nsp	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R304		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R305		nsp	CHIP 150kΩ ±5% 1/16W	NN05154610
R306		nsp	CHIP 470kΩ ±5% 1/16W	NN05474610
R307		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R309		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R310		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R311		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
R312		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
R313		nsp	CHIP 1MΩ ±5% 1/16W	NN05105610
R314		nsp	CHIP 8.2kΩ ±5% 1/16W	NN05822610
R315		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R316		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R317		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R324 ∫ R339		NP05101610	CHIP 100Ω ±5% 1/16W	NP05101610
R340		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R341		nsp	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R342		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
R343		nsp	CHIP 2.2kΩ ±5% 1/16W	NN05222610
R344		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R347		nsp	CHIP 0Ω ±5% 1/16W	NN05000610

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
R348		nsp	CHIP 100Ω ±5% 1/16W	NN05101610
R349		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
R350		nsp	CHIP 10Ω ±5% 1/16W	NN05100610
R351		nsp	CHIP 22kΩ ±5% 1/16W	NN05223610
R354 ⟆ R361		nsp	CHIP 47Ω ±5% 1/16W	NN05470610
R371		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
R372		nsp	CHIP 100kΩ ±5% 1/16W	NN05104610
R373		nsp	CHIP 68kΩ ±5% 1/16W	NN05683610
R377		NP05224610	CHIP 220kΩ ±5% 1/16W	NP05224610
R378		nsp	CHIP 68kΩ ±5% 1/16W	NN05683610
RF01		nsp	CHIP 1kΩ ±5% 1/16W	NN05102610
RF02		nsp	CHIP 330kΩ ±5% 1/16W	NN05334610
RF03 ⟆ RF06		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
RF07		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF08		nsp	CHIP 100kΩ ±5% 1/16W	NN05104610
RF09		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
RF10		nsp	CHIP 100kΩ ±5% 1/16W	NN05104610
RF12		nsp	CHIP 4.7kΩ ±5% 1/16W	NN05472610
RF13		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
RF14 ⟆ RF18		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
RF19		nsp	CHIP 0Ω ±5% 1/16W	NN05000610
RF20		nsp	CHIP 47kΩ ±5% 1/16W	NN05473610
RF21		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
RF22		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
RF23		nsp	CHIP 10kΩ ±5% 1/16W	NN05103610
			PV16-SEMICONDUCTORS	
D104 ⟆ D106		HZ21005000	CHIP DIODE 1SS301 DAN202U UMT	HZ21005000
D109		HZ20003100	CHIP DIODE DIODE EC105DS2TE12L	HZ20003100
Q101		HC10077250	IC CXD1881R RF AMP	HC10077250
Q102		HC10147090	IC NJM2115V OP-AMP	HC10147090
Q103		HX207982A0	CHIP TRS 2SB798 DL DK	HX207982A0
Q104		HX207982A0	CHIP TRS 2SB798 DL DK	HX207982A0
Q105		HX207982A0	CHIP TRS 2SB798 DL DK	HX207982A0
Q106		HC12239090	IC NJM3414AV OP-AMP SSOP8P	HC12239090
Q107		HF230192A0	F.E.T. 2SK3019 FET SWICTHING	HF230192A0
Q108		HF230192A0	F.E.T. 2SK3019 FET SWICTHING	HF230192A0
Q109		HC12237090	IC NJM2137V OP-AMP	HC12237090
Q110		HC10209990	IC AD8062 HI-SPEED OP-AMP	HC10209990
Q111		HC10147090	IC NJM2115V OP-AMP	HC10147090
Q112		HC12238090	IC NJM2903V COMPARATOR	HC12238090
Q113		HC10147090	IC NJM2115V OP-AMP	HC10147090
Q114		HC12238090	IC NJM2903V COMPARATOR	HC12238090
Q115		HC010105K0	IC TC74LVX4053FT ANALOG SW	HC010105K0
Q116		HC10080250	IC CXD3068Q CD DECODER	HC10080250
Q117		HC10222210	IC BA5981FP MOTOR DRIVER-4CH	HC10222210
Q118		HC12239090	IC NJM3414AV DUAL OP-AMP SSOP8P	HC12239090
Q119		HC10427050	IC TC7SHU04F TOSHIBA	HC10427050
Q121		HC10209990	IC AD8062 HI-SPEED OP-AMP	HC10209990
Q122		HC10156990	IC EM636165TS-7 S-DRAM 2B 16MBYT	HC10156990
Q123		HC10079250	IC CXD2752R SACD DECODER	HC10079250
Q124		HC10078250	IC CXD1882R DVD DECORDER	HC10078250
Q125		HU01AKY10F	MICROPROCESSOR CXPQ71000 CONTROL-UPC	HU01AKY10F
Q126		HC005805K0	IC TC74VHC157FT	HC005805K0

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
Q127		HC10210990	IC M11L16161SA-45T EDO-DRAM 16M	HC10210990
Q128		BA10014210	DIG.TRS. DTA144EU	BA10014210
Q129		BA20021210	DIG.TRS. DTC144EC	BA20021210
Q132		HC006105K0	IC TC74VHC541FT	HC006105K0
Q133		HC006105K0	IC TC74VHC541FT	HC006105K0
Q134		BA20021210	DIG.TRS. DTC144EC	BA20021210
Q135		HC007905K0	IC TC7WH74FU D-TYPE FLIP FLOP	HC007905K0
Q136		HC010005K0	IC TC7WH08FU 2-INPUT AND GATE	HC010005K0
Q137		HC006105K0	IC TC74VHC541FT	HC006105K0
Q138		BA20021210	DIG.TRS. DTC144EC	BA20021210
Q139		HC008405K0	IC TC74VHC86FT	HC008405K0
Q140		HC009305K0	IC TC74VHC00FT	HC009305K0
Q141		HC005605K0	IC TC74VHC74FT D-FF	HC005605K0
Q151		HC98A33090	IC NJM2391DL1-33 1A 3.3V	HC98A33090
Q152		HC98A33090	IC NJM2391DL1-33 1A 3.3V	HC98A33090
Q153		HC98A26090	IC NJM2391DL1-26 1A 2.6V	HC98A26090
Q155		HX341161C0	CHIP TRS 2SC4116GR	HX341161C0
Q156		HX409992A0	CHIP TRS. 2SD999 CM CL 250 1A	HX409992A0
Q157		HX207982A0	CHIP TRS 2SB798 DL DK	HX207982A0
Q158		HX341161C0	CHIP TRS 2SC4116GR	HX341161C0
Q159		HX409992A0	CHIP TRS. 2SD999 CM CL 250 1A	HX409992A0
Q160		HX207982A0	CHIP TRS 2SB798 DL DK	HX207982A0
QF01		HU01AKF00F	MICROPROCESSOR MB90F553A	HU01AKF00F
QF02		HC10098530	IC S-80843ALNP-EA7-T2 4.3V SC82	HC10098530
QF03		BA20021210	DIG.TRS. DTC144EC	BA20021210
QF04		HC10033990	IC AT24C04N-10SI-2.5	HC10033990
			PV16-MISCELLANEOUS	
L101		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L102		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L103		LU12473010	CHIP INDUCTER 47µH	LU12473010
L104		LU12473010	CHIP INDUCTER 47µH	LU12473010
L105		LU12473010	CHIP INDUCTER 47µH	LU12473010
L109 ⟆ L111		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L120 ⟆ L126		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L128		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L129		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L132		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
L133		FC90020100	FERRITE CORE FB M J2125HM330-T	FC90020100
X101		JX33001470	CRYSTAL XTAL 33.8688MHZ	JX33001470
X103		FQ02005060	SERAMIC VIB. CSTCW-X SMD 20.0MHz	FQ02005060
XF01		FQ08004070	SERAMIC VIB. CSTCC8.00MG-TC 8.000MHz	FQ08004070
			PY16-FRONT CIRCUIT BOARD	
			PY16-RESISTORS (COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : ALL	
			PY16-SEMICONDUCTORS	
DY04		HI10062320	L.E.D. LT3D8B RED 3O	HI10062320
QY01		HC10416030	IC FL DRIVER LC75712E	HC10416030

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR EUR)	DESCRIPTION	PART NO. (MJI)
QY05		BA10001000	DIG.TRS. DTA114ES UN4111 10k 10k	BA10001000
			PY16-MISCELLANEOUS	
SY01 ∫ SY10		SP01012030	PUSH SWITCH SKHVBF 260GF RED	SP01012030
VX01		HQ31301920	DISPLAY UNIT FTD CM2059C	HQ31301920
ZY01		HW10004210	PHOTO UNIT RPM6936-V4 IR SENSOR	HW10004210

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